From: info@gatewayeis.com
Sent: Friday, October 28, 2011 3:04 PM
To: Gateway BLM
Subject: A comment from gatewayeis.com

Name:
Bryan Sprague

Organization:
IFW (Idaho For Wildlife)

Mailing Address:
324 Washington st.

Mailing Address 2:

City:
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State:
Idaho

Zip:
83211

Daytime Phone:
208-317-5785

E-mail:
besprague@cableone.net

Confidential:
No

DEIS Location:

Comment:
I'm having trouble getting a close look at the exact location of these lines through the Rockland Valley, but if going over Mountains near East Fork of Rock Creek is the planned area our group is deeply concerned. My position with this group is Chapter Chairman. We have discussed the diffrent proposed sites for your route and our 1,200 members locally in Pocatello , American Falls, Rockland, Burley, have voted unamiously against the East Fork of Rock Creek route. Our concerns lie with the well being of our struggling deer herds. Please reconsider and change this East Fork route for the Mule deers benifit. there are very few areas as large and as good of cover for the deer to protect theirselves. Our entire membership asked me to send this request on their behalf. Thank you Bryan Sprague

From: McLain, Joy [Joy.McLain@tetratech.com]
Sent: Monday, October 10, 2011 7:36 AM
To: blm@gwcomment.com
Subject: FW: TNC request for additional public comment -- Gateway West
Attachments: Simpson Letter -- Gateway West.pdf

From: George, Walter E [mailto:wgeorge@blm.gov]
Sent: Friday, October 07, 2011 10:55 AM
To: Diane Adams; McLain, Joy
Subject: FW: TNC request for additional public comment -- Gateway West

Please add the email and attachment to the DEIS comments.

From: William S. Whelan [mailto:wwhelan@TNC.ORG]
Sent: Thursday, October 06, 2011 10:48 AM
To: Ellis, Steven A; jeffery_foss@blm.gov; George, Walter E
Cc: Holly Copeland; Trish Klahr; mpowelson@tnc.org
Subject: TNC request for additional public comment -- Gateway West

The attached letter to Wyoming BLM State Director Don Simpson went out in yesterday's USPS mail. The letter requests an opportunity for public comment on the habitat equivalency analysis and draft compensatory mitigation measures for the Gateway West transmission line prior to preparation of a final EIS for the project. We would like to work cooperatively with BLM on a comment process that allows substantive and timely input while minimizing any impact on the project schedule.

We appreciate BLM's willingness to consider our request. Please feel free to contact me any time.

Will

Will Whelan
Director of Government Relations

wwhelan@tnc.org
(208) 350-2202 (Phone)
(208) 484-9779 (Mobile)
(208) 343-8892 (Fax)

nature.org

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Idaho Chapter - Boise Office
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Protecting nature. Preserving life.™

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nature.org

October 5, 2011

Donald A. Simpson, State Director
Wyoming State Office
Bureau of Land Management
P.O. Box 1828
Cheyenne, Wyoming 82003-1828

Re: Gateway West Transmission Line – Request for Additional Public Comment

Dear Mr. Simpson:

The Nature Conservancy (TNC) respectfully requests that the Bureau of Land Management (BLM) provide an opportunity for additional public comment regarding compensatory (offsite) mitigation measures for the Gateway West Transmission Line before BLM prepares the final environmental impact statement (FEIS) for the project. The sage grouse impacts analysis and compensatory mitigation measures were not included in the draft environmental impact statement (DEIS) and will not be available to the public prior to the close of comments on the DEIS.

Since 2008 the Conservancy has been deeply involved in the siting and mitigation of energy infrastructure on public lands. Our experience has reinforced our belief that providing energy to the public and protecting biodiversity are not mutually exclusive objectives, given the appropriate scientific and policy framework. The Conservancy has successfully utilized landscape-scale assessments in a collaborative planning process to balance the needs of energy infrastructure development with wildlife conservation.

TNC agrees with the BLM's statement in the DEIS that the extent of compensatory mitigation is a key factor in evaluating the project's environmental effects and in shaping BLM's decisions on the project permit.[1] In fact, we believe that Gateway West offers an unparalleled opportunity to establish sound policies and principles to guide compensatory mitigation for large infrastructure projects in sage grouse habitat. TNC and other interested members of the public have a vital interest in this aspect of the environmental review process for the project.

Rules implementing the National Environmental Policy Act (NEPA) emphasize that agencies should make diligent efforts to involve the public and give BLM flexibility to craft procedures to accomplish that objective. 40 C.F.R. § 1506.6. In this instance, additional public comment on the mitigation measures is likely to produce valuable perspectives for the BLM and to lead to a better and more broadly accepted decision. We are ready to work with you on an approach that

[1] Draft Environmental Impact Statement at 3-11-72 – 3-11-73.

will provide timely and meaningful public input while minimizing any changes in the project review timeline.

To ensure that BLM has a full opportunity to incorporate public input on compensatory mitigation, additional public comment should occur as soon as BLM is able to share results of the Habitat Equivalency Analysis (HEA) and *draft* mitigation measures but before BLM prepares the final environmental impact statement (FEIS). We encourage the BLM to reach out to the Conservancy and other interested organizations as a first step toward developing an interactive process for public engagement on this key element of the Gateway West project.

It is important to note that TNC also expects to respond to the transmission line route alternatives discussed in the DEIS. We believe the DEIS offers the information needed for this aspect of our comments.

We would appreciate an opportunity to work with you and BLM's project staff on this matter. For further information, please contact Will Whelan of TNC's Idaho Chapter at wwhelan@tnc.org and 208-350-2202 or Holly Copeland of TNC's Wyoming Chapter at hcopeland@tnc.org or 307-335-2129.

Thank you for your consideration.

Sincerely,

Laura Hubbard
State Director
Idaho Field Office

Andrea Erickson
State Director
Wyoming Field Office

cc: Walt George, Gateway West Project Manager, BLM
Steve Ellis, Idaho State Director, BLM
Jeff Foss, Idaho DSDR

Trish Klahr
<tklahr@TNC.ORG>
10/28/2011 04:59 PM

To <gateway_west_wymail@blm.gov>
cc Michael Powelson <mpowelson@TNC.ORG>, "William S. Whelan" <wwhelan@TNC.ORG>, Holly Copeland <hcopeland@TNC.ORG>, Lou Lunte <llunte@TNC.ORG>
bcc
Subject The Nature Conservancy's comments on the DEIS

To Whom It May Concern:

Please find attached comments from The Nature Conservancy on the draft EIS for the Gateway West project.

Regards,

Trish Klahr

Please consider the environment before printing this email

Trish Klahr
Senior Policy Representative

tklahr@tnc.org
(208) 788-8988 Ext. 13 (Phone)
(208) 788-9040 (Fax)

The Nature Conservancy
Idaho State Office
116 North 1st Avenue
Hailey, ID 83333

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Final Gateway West comments.pdf

The Nature Conservancy
Protecting nature. Preserving life.™

October 28, 2011

Walt George, Project Manager
Gateway West Transmission Line Project
Bureau of Land Management
P.O. Box 20879
Cheyenne, Wyoming 82003-20879

Re: Comments on Draft Environmental Impact Statement for Gateway West Transmission Line Project

Dear Mr. George:

Thank you for the opportunity to comment on the draft Environmental Impact Statement for the proposed Gateway West Transmission Line Project. The Nature Conservancy's response is attached. Our comments represent contributions and critical input from staff in Wyoming and across the Conservancy with energy and sage grouse expertise; our Idaho Chapter served as the lead in preparation of these comments.

If you have questions regarding these comments, please contact Will Whelan, Director of Government Relations for The Nature Conservancy in Idaho, at 208-350-2202 or wwhelan@tnc.org. Thank you.

Sincerely,

Michael Powelson
Director of Energy Programs
The Nature Conservancy, North America Region

Comments of The Nature Conservancy regarding the Draft Environmental Impact Statement for the Gateway West Transmission Line Project

The Nature Conservancy appreciates the opportunity to submit the following comments on the draft environmental impact statement (DEIS) for the proposed Gateway West Transmission Line Project (the Project) prepared by the Bureau of Land Management (BLM).

INTRODUCTION

The Nature Conservancy (the Conservancy) is an international nonprofit organization dedicated to biodiversity conservation. The Conservancy's mission is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. Our on-the-ground conservation work is carried out in all 50 states and in 30 countries with the support of approximately one million members. Throughout the United States, the Conservancy works closely with federal, state and local governments, businesses, the conservation community and private individuals to protect biodiversity in a science-based, collaborative manner.

The Conservancy has been deeply involved in the siting of renewable energy facilities and their associated transmission infrastructure on public lands. The Conservancy has successfully used landscape-scale assessments in a collaborative planning process to balance the needs of energy infrastructure development with the conservation of natural resources and wildlife. Our experience has reinforced our belief that developing clean energy and protecting biodiversity are not mutually exclusive. In our view, the question is not whether to proceed with renewable energy and transmission infrastructure; the question is *where* to locate development to avoid or minimize impacts, or how to mitigate impacts to species and habitats if impacts cannot be avoided.

The Conservancy is strongly committed to cooperative, collaborative approaches to resolving environmental issues. Although these comments raise concerns about the content of the DEIS, we remain convinced that this Project offers an unparalleled opportunity to protect, restore, and enhance the environment while also contributing to building an electrical grid that meets the country's energy needs. The Conservancy requests the BLM work together with the Project applicants and stakeholders to meet NEPA's goal of "fostering excellent action."[1]

SUMMARY OF COMMENTS

1. The Mitigation hierarchy provides a sound framework for analyzing the Project.

[1] 40 C.F.R. § 1500.1(c).

2. The DEIS correctly concludes that compensatory mitigation is needed to offset project impacts to sage-grouse habitat.

3. The DEIS omits essential sage-grouse habitat impact analyses and compensatory mitigation measures.

4. BLM should provide for additional public comment on the mitigation measures, and specifically the compensatory mitigation elements, prior to the preparation of a final EIS.

5. The EIS should, at least, address the major policies that will guide the development of compensatory mitigation measures. The Conservancy recommends that the EIS fully explain how the BLM will:

    a. Determine which focal species, natural communities, or representative biological targets will be the subject of compensatory mitigation measures;
    b. Base the scope of compensatory mitigation on a full evaluation of Project impacts;
    c. Establish clear and measureable objectives for compensatory mitigation;
    d. Provide a common currency and accounting methodology;
    e. Use landscape-scale conservation planning to target mitigation actions;
    f. Identify mitigation methods;
    g. Address factors affecting mitigation effectiveness; and
    h. Address mitigation project duration and management.

6. The final Proposed Route should avoid areas with high biological value such as sage-grouse breeding density areas, as summarized in our specific route alternative comments.

7. The application of the Density Disturbance Calculator should be re-evaluated as it appears to drive development into pristine landscapes in order to keep disturbance to no more than 5% of sage-grouse habitat.

I. The Mitigation Hierarchy Provides a Sound Framework for Analyzing the Project.

The Nature Conservancy adheres to the "mitigation hierarchy" as a sound and coherent framework for evaluating projects affecting the environment. That hierarchy directs decision makers to consider the elements of environmental mitigation in the following order of priority:

1. Avoid environmental impacts through project siting and design;

2. Minimize the impacts during construction, operation and maintenance by controlling the timing and conduct of project activities;

3. Mitigate the impacts through habitat restoration or otherwise rectifying damage; and

4. Compensate for residual impacts by providing replacement habitats or resources (i.e., offsite mitigation).

The mitigation hierarchy prefers avoiding environmental impacts over other forms of mitigation. The Conservancy recognizes, however, that large infrastructure projects, such as interstate transmission lines, may be properly designed and sited but still produce significant unavoidable impacts. In those instances, other forms of mitigation, including compensatory or offsite mitigation, can help address these unavoidable impacts to acceptable levels

For the most part, the proposed route for the Project in Idaho follows a path that would minimize impacts to the most important sage-grouse habitats; this is not the case in Wyoming, where the proposed route crosses 184 miles of core sage grouse habitat. That is also not the case with several of the Alternative alignments proposed in Idaho which cross through highly sensitive sage-grouse habitat (see our specific comments on route selection at the end of this document).

It is clear that significant, unavoidable adverse impacts to sage-grouse will occur from the proposed project, yet no mitigation measures compensating for these impacts are proposed in the DEIS. Thus, our primary focus with these comments is requesting additional opportunity for public comment on compensatory mitigation measures prior to the final EIS, and to provide guidance on key elements that should be incorporated into a successful compensatory mitigation plan. To be clear, our goal is a clear explanation of the technical analyses and policies that will guide how compensatory mitigation will be used to offset Project impacts.

II. The DEIS Correctly Concludes that Compensatory Mitigation Is Needed to Offset Project Impacts to Sage-grouse Habitat.

The Project's direct, indirect, and cumulative impacts to sage-grouse habitat are the most significant environmental issue addressed in the DEIS. Greater sage-grouse are a BLM-designated sensitive species that are to be managed to promote their conservation and to avoid the need to protect the species under the Endangered Species Act (ESA).[2] In March 2010, the U.S. Fish and Wildlife Service (USFWS) determined that greater sage-grouse warranted protection under the ESA.[3] Although the USFWS ultimately determined that listing the species was precluded by the need to address other higher priority species first, the agency has stated that it intends to issue a determination whether to list greater sage-grouse as threatened or endangered by 2015. It is clear that the sage-grouse is in decline and that the species will likely be listed unless its populations can be stabilized.

The potential for a future listing of sage-grouse is justifiably viewed with concern by the Conservancy and nearly every group with an interest in the nation's western public lands administered by the BLM. A sage-grouse listing would impose significant new regulatory requirements on a wide range of uses, including but not limited to grazing, recreation, oil and gas

[2] BLM Manual at § 6840.
[3] 75 Fed. Reg. 13909-14014 (March 23, 2010).

development, and energy generation and transmission. Thus, new land uses, e.g. infrastructure development, that impair remaining core and/or intact sage-grouse habitat could be actually counter-productive to the region's long-term energy goals.

The Gateway West Project would pass through 235 miles of either "core" sage-grouse habitat in Wyoming or "key" sage-grouse habitat in Idaho. In Idaho, the line would cross an additional 76 miles of sage-grouse habitat in other categories (R-1 through R-3). The DEIS explains that the transmission line is likely to have a wide range of impacts on sage-grouse, including: 1) collisions/electrocutions, 2) consolidation of predatory birds along powerlines, 3) lower recruitment rates near lines, 4) habitat fragmentation, 5) degradation of habitat due to spread of invasive plant species, 6) impacts resulting from the line's electromagnetic fields, and 7) direct loss of habitat.[4] Note that the USFWS has stated that powerlines may also affect sage-grouse use of habitat.[5]

Given these impacts, the DEIS concludes that "compensatory mitigation for impacts to greater sage-grouse and their habitats will likely be necessary" given "the magnitude of potential impacts that the project would have on their habitats..." and other factors.[6]

In fact, the DEIS plainly states that, absent an acceptable compensatory mitigation plan, the Project could not comply with the BLM's Sensitive Species Policy:

> Given the extent of the direct and indirect impacts on greater sage-grouse and their habitat, as well as the lack of a compensatory mitigation plan that is currently acceptable to both the Proponents and the state and federal agencies, the Project's construction and operations may impact individuals or habitat, and is **likely to contribute to a trend toward federal listing or loss of viability for the greater sage-grouse** (R4 language). For the same reasons, the Project may adversely impact individuals and is **likely to result in a loss of viability in the Planning Area, or cause a trend towards federal listing** (R2 language).[7]

As noted above, the BLM's Sensitive Species Policy directs the agency "to reduce the likelihood and need for [sensitive] species to be listed pursuant to the ESA."[8]

BLM's broad authority to protect wildlife resources on public lands gives the agency ample latitude to include compensatory mitigation measures as conditions in right-of-way grants.[9] In the wake of the U.S. Fish and Wildlife Service's "warranted but precluded" determination, BLM

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[4] DEIS at 3-11-63.
[5] 75 Fed. Reg. at 13928.
[6] DEIS at 3-11-72.
[7] DEIS at 3-11-72 – 3-11-73 (emphasis added).
[8] BLM Manual 6840.2.
[9] 43 U.S.C. §302(b) (BLM's authority and obligation to avoid undue and unnecessary degradation of public land, including wildlife resources).

instructed its managers that "the BLM may condition approval of a project proposal upon additional onsite modification or additional mitigation, including offsite mitigation."[10]

III. The DEIS Omits Essential Sage-Grouse Habitat Impact Analyses and Compensatory Mitigation Measures.

Despite the central importance that the DEIS accords to compensatory mitigation, the DEIS was released to the public with no compensatory mitigation measures and without disclosure of the key technical analyses that the BLM intends to rely upon in determining the appropriate scale of such mitigation.

The DEIS explains that BLM will utilize "Habitat Equivalency Analysis" (HEA) as the technical tool for determining the potential size of the compensatory mitigation program. The DEIS describes HEA as "a method of quantifying the permanent or interim loss of habitat services from Project-related impacts (measured as a loss of habitat services from pre-disturbance conditions) and is used to scale compensatory mitigation requirements to potential Project related impacts." [11]

HEA has been extensively used by federal agencies, particularly for developing natural resources damages assessment. However, HEA is a general methodology that is adapted for specific species, habitats, and project applications. In this instance, BLM has declined to disclose the specific HEA model it is employing for review of the Project.[12]

The DEIS makes it clear that discussion of compensatory mitigation measures is premature until the undisclosed HEA model analysis developed for the Gateway West Project is complete.

> Until an impacts analysis has been conducted in coordination with agency biologists—leading to an adequate understanding of impacts to sage-grouse populations and habitat—the issue of mitigation cannot be addressed.[13]

The DEIS states that the HEA and mitigation measures will be set forth in a final environmental impact statement (FEIS) for the project. However, the DEIS leaves the public in the dark about essentially all of the technical and policy elements affecting compensatory mitigation for the Project. The public does not have access to BLM's approach for examining and assessing impacts that will be used to determine the scale of mitigation. It also does not know the species or environmental values that will benefit from mitigation, the extent to which adverse impacts will be offset, how mitigation will be accomplished, or how BLM will ensure that mitigation is effective.

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[10] U.S. Department of the Interior, Bureau of Land Management. Instruction Memorandum 2010-071, "Gunnison and Greater Sage-grouse Management Considerations for Energy Development (Supplement to *National Sage-Grouse Habitat Conservation Strategy).*"

[11] DEIS at 3-11-16.

[12] DEIS Appendix J at 1 (referring to the use of the Choke Cherry/Sierra Madre HEA model).

[13] DEIS at 3-11-17.

This is not sufficient to meet NEPA's commitment to public involvement. We specifically request that BLM provide the detail behind the development and application of the HEA in this situation.

To be clear, we are not requesting that a final compensatory mitigation plan be made available for public comment prior to the FEIS. Rather, we seek a clear explanation of the technical analyses and policies that will guide how compensatory mitigation will be used to offset Project impacts.

IV. BLM Should Provide Opportunity for Additional Public Comment on Compensatory Mitigation Prior to the Preparation of a Final EIS.

Compensatory mitigation is an integral part of the NEPA process for the Gateway West Project and should not be withheld from public review until after decisions are made and set forth in the FEIS.

NEPA requires that an EIS must "provide full and fair discussion of significant environment impacts of the proposed actions and shall inform decision-makers *and the public of the reasonable alternatives which would avoid or minimize adverse impacts* or enhance the quality of the human environment."[14] NEPA's public involvement "guarantees that the relevant information will be made available to the larger audience that may also play a role in both the decision-making process and the implementation of that decision."[15] These procedures ensure that "environmental information is available to public officials and citizens before decisions are made."[16]

In this instance, compensatory mitigation is central – not merely incidental – to the evaluation of environmental impacts of and alternatives to the project in the EIS. The DEIS acknowledges that, without compensatory mitigation, the project is unlikely to comply with BLM's own policy regarding management of sage-grouse.[17] On this record, compensatory mitigation constitutes a vital factor in the decision before the agency.

This does not necessarily mean that BLM needs to present the public with a full mitigation plan before it can issue a permit for the project. Rather, BLM's obligation is to disclose key technical analyses used for scaling compensatory mitigation, explain the role of mitigation in offsetting project impacts and evaluate mitigation effectiveness. In short, the EIS must allow the public and agency decision makers to understand the role that compensatory mitigation plays in the decision.

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[14] 40 C.F.R § 1502.1 (emphasis added).
[15] Oregon Natural Desert Ass'n v. BLM, 625 F.3d 1092, 1099 (9th Cir. 2010).
[16] 40 C.F.R. §1502.1(b).
[17] DEIS at 3-11-72,

The U.S. Supreme Court has advised that "the EIS must discuss mitigation . . . in sufficient detail to ensure that environmental consequences have been fairly evaluated."[18] The Tenth Circuit recently elaborated:

> Accordingly, the EIS must discuss "mitigation . . . in sufficient detail to ensure that environmental consequences have been fairly evaluated." *Id*. at 352. An agency is required to "discuss possible mitigation measures in defining the scope of the EIS, 40 CFR § 1508.25(b) (1987), in discussing alternatives to the proposed action, § 1502.14(f), and consequences of that action, § 1502.16(h), and in explaining its ultimate decision, § 1505.2(c)." *Id.* "It is not enough to merely list possible mitigation measures." *Colorado Envtl. Coal. v. Dombeck*, 185 F.3d 1162, 1173 (10th Cir. 1999).[19]

These judicial statements are congruent with BLM's most recent policy statement on compensatory mitigation (also known as "offsite" mitigation), which called for offsite mitigation to be developed through the NEPA process. "The BLM can approve offsite mitigation without a new NEPA document if the need for that mitigation has been *identified and evaluated* in a previous NEPA document."[20] While the DEIS does identify the need for compensatory mitigation, it contains no evaluation of its scope, nature, or effectiveness.

NEPA's goals for public involvement cannot be met by withholding the HEA and compensatory mitigation measures until the FEIS. The DEIS states that compensatory mitigation is likely required in order for the agency to comply with its own sensitive species policy.[21] The decision to exclude the HEA and compensatory mitigation measures from the DEIS leaves the BLM without public comment on a material environmental aspect of the Project and leaves the relevant public without material information about the Project. This prejudices the public's ability to participate and gives rise to a deficiency that is not curable in the FEIS.

NEPA focuses public comment on the scoping and draft EIS stages of the process in order to ensure that the public's views can be fully considered prior to agency decisions and commitments. A final EIS is just that – final. While it may be possible for the Record of Decision to depart from the final EIS, these changes can only be "minor" if the agency is to avoid the need to supplement either the final or the draft EIS.[22] This is the reason why the Council on Environmental Quality's rules implementing NEPA provide that the "*draft* statement must fulfill and satisfy to the fullest extent possible the requirements [for an EIS]."[23] In sum, the constraints on the BLM's latitude to accept stakeholder recommendations at the FEIS stage

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[18] Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 352 (1989).

[19] San Juan Citizens Alliance v. Stiles, 10-1259 (10th Cir. 2011). *See also*, South Fork Band Council of Western Shoshone of Nevada v. United States Dept. of Interior, 588 F.3d 718 (9th Cir. 2009).

[20] B.L.M., Dep't of Interior, Instruction Memorandum 2008-204 on Offsite Mitigation (2008), Attachment 1 at page 2.

[21] DEIS at 3-11-72; BLM Manual at § 6840.

[22] BLM NEPA Handbook at §9.6, page 102.

[23] 40 C.F.R. § 1502.9(a) (emphasis added).

means that additional public comment should occur as soon as possible and certainly before the preparation of the FEIS.

Rules implementing the NEPA give BLM broad flexibility to craft procedures to improve public involvement, including holding public meetings "whenever appropriate."[24] The normal remedy for serious deficiencies in a draft EIS is to circulate a "revised draft EIS."[25] Although the prospect of revising the DEIS may sound daunting, the rules allow the revision to address just "the appropriate portion" of the EIS.[26] In this case, that revision could focus only on the omitted HEA, compensatory mitigation measures, and any other essential elements identified as missing by other stakeholders.

The Conservancy is sensitive to the desire to avoid delays in the Project schedule. We would like to work with BLM, the project applicant and other stakeholders to design a process that will provide timely, efficient, and meaningful public input while minimizing any changes in the project review timeline.

V. The EIS Should Address the Major Policies that Will Guide the Development of Compensatory Mitigation Measures.

"Because the EIS is the most comprehensive environmental document, it is an ideal vehicle in which to lay out not only the full range of environmental impacts but also the full spectrum of appropriate mitigation."[27] This need not be an exhaustive exercise. The EIS need not set forth a list of specific mitigation projects or a detailed mitigation plan[28] – although access to this information would be welcomed.

The goal of the EIS should be to provide a clear explanation of how compensatory mitigation will be employed to offset the Project impacts. This means that the EIS should contain enough detail concerning the mitigation measures to allow agency decision makers, and the public, to make a reasoned evaluation of the Project's impacts and alternatives.[29] The discussion should set forth the measures that will be undertaken and assess their effectiveness.[30] The document should also include "clear documentation of mitigation commitments considered in . . . EISs," "descriptions of the "expertise and professional judgment applied in determining appropriate mitigation commitments," and analysis of "when and how those mitigation commitments will be implemented."[31]

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[24] 40 C.F.R. §1506.6(c)
[25] 40 C.F.R. §1502.9(a).
[26] Id.
[27] Council on Environmental Quality, Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18026 (March 23, 1981) at 19b.
[28] *See* Robertson v. Methow Valley Citizens Council, 490 U.S. at 352.
[29] *See* Neighbors of Cuddy Mountain v. U.S. Forest Service, 137 F.3d 1372, 1380-81 (9th Cir. 1998).
[30] *Id.*
[31] Council on Environmental Quality. 2010. Draft Guidance for NEPA Mitigation and Monitoring. Memorandum for heads of federal Departments and Agencies. From Nancy Sutley, Chair CEQ at 8.

In this instance, the Conservancy requests that the EIS address the following major policy points that define how mitigation will be employed for this Project.

A. Determine which Focal Species, Natural Communities, or Representative Biological Targets Will Be the Subject of Compensatory Mitigation Measures.

Greater sage-grouse are an obvious and appropriate target for compensatory mitigation given their sensitive status and the impacts of a potential listing on the wide range of activities that take place in sage-grouse habitat. However, sage-grouse are not the only sensitive species or environmental value that could benefit from compensatory mitigation. For instance, the El Paso Nature Gas Company entered into multi-agency conservation agreements that focused mitigation on sage-grouse, pygmy rabbits, and migratory birds. Those three biological "targets" led to the development of mitigation plans that sought to offset the habitat impacts from every mile of the Ruby pipeline.[32]

As a general matter, the Conservancy favors mitigation of all ecological impacts for the full range of habitats and species. We recognize that BLM may choose to focus compensatory mitigation more narrowly on specific species or biological targets. We would appreciate an opportunity to understand and comment on that decision. The EIS should expressly address BLM's rationale for selecting the particular species or targets for which compensatory mitigation measures are developed. For instance, if compensatory mitigation is limited to sage-grouse, the document should explain why the BLM did not develop mitigation alternatives for other species and values.

The specific comments in the remainder of this section specifically address sage-grouse but the main steps in the mitigation analysis would be similar for other biological targets.

B. Base the Scope of Compensatory Mitigation on a Full Evaluation of Project Impacts.

As its name suggests, "compensatory" mitigation focuses on "compensating for the impact by replacing or providing substitute resources or environments."[33] The effectiveness of this type of mitigation can only be evaluated by linking a complete statement of project impacts with a clear understanding of the extent to which these impacts will be offset by mitigation. The DEIS gets this point right when it states that: "Until an impacts analysis has been conducted in coordination with agency biologists leading to an adequate understanding of impacts to sage-grouse populations and habitat the issue of mitigation cannot be addressed."[34]

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[32] Ruby Pipeline Project, Record of Decision and Associated Attachments. http://www.blm.gov/nv/st/en/info/nepa/ruby_pipeline_project/record_of_decision.html

[33] 40 C.F.R. § 1508.20(e).

[34] DEIS at 3-11-18.

Because we have not had access to the completed HEA, it is not possible to comment on how BLM intends to weigh project impacts in establishing the scope of compensatory mitigation. Nevertheless, we anticipate two key issues arising from this element of the EIS.

First, given the status of sage-grouse, impacts to all sage-grouse habitat – including R1-R3 habitat in Idaho – should be mitigated. As noted below, habitat quality is best integrated into the analyses through the use of ratios. Lower quality habitat areas that still retain value for sage-grouse may be subject to a lower ratio than higher quality habitat.

Second, the EIS should address the full range of effects in setting the objectives for mitigation. One of the most difficult issues that BLM faces is how to account for indirect impacts associated with habitat fragmentation, increased predation, and changes in sage-grouse habitat utilization. The Conservancy acknowledges the uncertainty inherent in quantifying these impacts but nevertheless believes that these impacts are well enough understood to justify their inclusion in analyses that determine the scale of compensatory mitigation.

The body of research relative to explicit sage grouse/transmission line interactions is somewhat limited, however there is a plethora of research on their response to energy development and related development that causes landscape fragmentation. Naugle et al. (2011)[35] recently reviewed the scientific literature and identified fourteen studies documenting measurable declines in sage-grouse populations in response to energy development. Conversely, they found no studies documenting neutral or positive responses. The drivers of sage-grouse population changes they identified include behavioral avoidance, increased predation on both adults and juveniles, and nest predation. Similarly, Wisdom et al. (2011) summarized multiple factors, including distance to transmission lines, that indicated negative effects of anthropogenic features on sage-grouse populations.[36]

The most recent report from a long-term study of sage-grouse populations impacted by the Falcon Gondor transmission line in Nevada (Blomberg 2010)[37] shows a two to three fold increase in the abundance of common ravens following line construction. Several studies have documented that powerlines create preferred perches and nesting platforms for raptors and corvids (Knight and Kawashima 1993[38], Steenhof et al. 1993[39]). Ravens are reported to account

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[35] Naugle, D.E., K.E. Doherty, B.L. Walker, H.E. Copeland, M.J. Holloran, and J.D. Tack. 2001. Sage-grouse and cumulative impact of energy development. In: Naugle, D.E., ed. 2011. Energy Development and Wildlife Conservation in Western North America. Island Press. 305 pp.

[36] Wisdom, M., C. Meinke, et al. (2011). Factors Associated with Extirpation of Sage-Grouse. Greater Sage-Grouse: ecology and conservation of a landscape species and its habitats. S. T. Knick and Connelly J W. Berkeley, CA, University of California Press. **38:** 451-472.

[37] Blomberg, E., D. Nonne, and J. Sedinger. 2010. Dynamics of Greater Sage-grouse (*Centrocercus urophasianus) Population in Response to Transmission Lines in Central Nevada. Progress Report: Year 8.*

[38] Knight, R. L., and J. Y. Kawashima. 1993. Responses of raven and red-tailed hawk populations to linear rights-of-ways. Journal of Wildlife Management 57:266-271.

[39] Steenhof, K., M. N. Kochert, and J. A. Roppe. 1993. Nesting by raptors and common ravens on electrical transmission line towers. Journal of Wildlife Management 57:272-281.

for the majority of nest failures by many researchers (Connelly et al., 2004[40]), with nest failure positively correlated with distance from development activities. Similarly, repeated disturbance of displaying males by raptors has been documented to result in lek abandonment. Raptors, like ravens, utilize transmission lines as perches and have been documented to increase in abundance following constructions (Knight and Kawashima 1993[37]).

Sage-grouse behavior is complex and often inflexible. Adult birds exhibit strong site fidelity in both lek and nest sites (Holloran et al. 2008[41]). Thus, population response to development is slow, with lag times of up to ten years documented. These lag-effects must be incorporated into any assessment of impact. For example, lek abandonment often is manifested by young males recruiting into more distant leks as those leks closer to developed areas slowly decline and disappear as the older philopatric males die (Holloran and Anderson 2005[42]).

Both lesser and greater prairie chickens ((*Tympanuchus pallidicinctus* and *T. cupido*) have been studied in relation to electrical transmission lines. These two species are closely related to sage-grouse, and share similar habitats, life history and behavioral traits. Insights can be drawn from these studies that bear on expected sage-grouse population responses to the construction of Gateway West. Pruett (2009)[43] has shown that radio-tagged prairie chickens avoid electrical transmission, regardless of height, and seem to avoid taller structures more than shorter ones. Data collected on The Nature Conservancy's Tallgrass Prairie Preserve suggest that prairie chickens actively avoid small transmission lines (12-15 meters in height) at distances of 0.5 kilometers, and possibly up to 1.0 kilometer. These studies suggest that taller structures, and higher voltages, would result in avoidance at greater distances.

C. Establish Clear and Measureable Objectives for Compensatory Mitigation.

It is imperative that the EIS state clear objectives for compensatory mitigation, including but not limited to describing the extent to which Project impacts will be offset by mitigation actions. Given the status of sage-grouse, the Conservancy recommends that the objective be to fully offset habitat losses associated with the project. If the BLM determines that there are feasibility constraints affecting the selection of a mitigation objective, those constraints and their effect on the agency's decision should be fully articulated and discussed. As the Council on Environmental Quality recently explained: "[M]itigation commitments should be carefully

[40] Connelly, J. W., S. T. Knick, M. A. Schroeder, and S. J. Stiver. 2004. Conservation Assessment of Greater Sage-grouse and Sagebrush Habitats. Western Association of Fish and Wildlife Agencies. Unpublished Report. Cheyenne, Wyoming.

[41] Holloran, J.J., R.C. Kaiser, and W.A. Hubert. 2008. Yearling Greater Sage-grouse response to energy development in Wyoming. J. Wildl. Manag. 74:65-72.

[42] Holloran, M. J., and S. H. Anderson. 2005a. Greater sage-grouse population response to natural gas development in western Wyoming: are regional populations affected by relatively localized disturbances? Transactions of the North American Wildlife and Natural Resources Conference 70:160–170.

[43] Pruett, C.L., M.A. Patten, and D. H. Wolfe. 2009. Avoidance behavior by Prairie Grouse: Implications for development of wind energy. Cons. Biol. 23:1253-1259.

specified in terms of measureable performance standards or expected results so as to establish clear performance expectations."[44]

D. Provide a Common Currency and Accounting Methodology.

A common unit of measurement would be established for describing and tracking both the project impacts and the benefits of any compensatory mitigation actions. This unit of measurement can be a physical unit such as "acres impacted" or more specifically "acres of summer brood rearing habitat impacted" or "habitat units" lost. This allows BLM to be able compare the progress provided by mitigation against the original objectives established in the right-of-way permit

Any mitigation approach must base credit for mitigation actions on **additionality**. That is, the mitigation activity must provide a new contribution to conservation. Thus, when a mitigation project restores degraded habitat, it provides a new contribution to conservation. And when a project protects habitat that is threatened by on-going rates of loss or change, it also delivers conservation value against that background rate of loss.

The success of mitigation projects, especially restoration projects, can vary greatly. We recommend an accounting approach that incorporates the **probability of success** in the valuing of mitigation projects. Incorporating probability of success into mitigation accounting ensures a more realistic appraisal of how mitigation projects contribute to the overall goals of offsetting project impacts.

While the "common unit of measurement" noted above addresses the area of habitat impacted and mitigated, **habitat compensation ratios** are used to address the **quality** of the habitat affected by the infrastructure project. These ratios could specify the number of acres of mitigation required per acre of impacted habitat based on the size, habitat quality/condition and function of the impacted habitat; for more critical or important habitat, more mitigation acres might be required. Thus, habitats with higher quality and importance could have higher compensation ratios. Special features and particularly valuable habitats, such as sage-grouse winter range and migratory corridors, should be considered when evaluating habitat quality.

E. Use Landscape-scale Conservation Planning to Target Mitigation Actions.

Landscape-scale conservation planning is the process of locating and prioritizing areas and actions that can be implemented to maintain the long-term viability of a target species, such as sage-grouse. The conservation plan is intended to articulate a vision that incorporates the full range of habitat needs for the biological target to persist in the long term. The end product is a portfolio of priority areas (often large and resilient sites), priority projects, and mitigation actions that represent the optimum strategies for the long-term survival of the species. We recommend the development of such a conservation plan, utilizing the knowledge and skills of an advisory work group to direct the mitigation efforts. The EIS should use conservation planning to guide mitigation investments rather than simply relying on a pre-existing list of off-the-shelf sage-

[44] Council on Environmental Quality. 2010. Draft Guidance for NEPA Mitigation and Monitoring. Memorandum for heads of federal Departments and Agencies. From Nancy Sutley, Chair CEQ at 8.

grouse habitat projects or proposals. A "wish list" approach to identifying mitigation projects tends to direct resources toward activities that may be expedient but not strategic. Sound conservation planning is needed to ensure that funds are directed to the places and to the projects that will provide the most benefit for target species.

We understand that the full conservation plan may not be ready at the time the EIS process is completed. The EIS should, however, specifically establish the scope, contents, guiding principles, agency responsibilities, and development process for the plan.[45]

F. Identify Mitigation Methods.

The EIS should identify the categories of mitigation projects or strategies that will be included in the mitigation plan for the Project, and specifically the compensatory mitigation elements. We recommend that the BLM consider a portfolio of sage-grouse habitat protection, enhancement, and restoration that provide long-term habitat benefits for sage-grouse.

The northern Great Basin is losing high-quality sage habitat at an alarming rate and it is critical that, whenever possible, loses are mitigated by rehabilitating and restoring key areas. We recognized that sage-steppe restoration is a challenging enterprise, with success dependent on above-average precipitation. However, techniques and tools for sagebrush restoration have improved significantly over the past several years and we believe that restoration must be part of any mitigation plan for projects that disturb healthy sage-steppe habitats.

G. Address Factors Affecting Sage-grouse Mitigation Effectiveness.

Compensatory mitigation is often a difficult and uncertain undertaking. As noted above, the Conservancy believes that mitigation projects, including sagebrush habitat restoration and protection, hold great promise for offsetting the project impacts. For these benefits to be realized, however, it is important that the mitigation plan incorporate the following two considerations:

> Consider probability of success (likelihood that a mitigation action will deliver the expected conservation benefits).
>
> Consider time lag to conservation maturity. This is evaluated as the length of time for a mitigation action to deliver conservation at maturity level (or ecological state) similar to that lost at the impact site.[46]

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[45] For an example of a BLM record of decision addressing conservation planning for mitigation, see the West Butte Wind Energy Record of Decision, http://www.blm.gov/or/districts/prineville/plans/wbw_power_row/, at page 4. Although the Conservancy does not endorse all aspects of this decision, the document explains several of the key elements to be considered in compensatory mitigation planning for sage-grouse.

[46] West Butte Wind Energy Record of Decision, http://www.blm.gov/or/districts/prineville/plans/wbw_power_row/, at page 4.

The scope of the compensatory mitigation needs to be adjusted (increased) to reflect contingencies and time lag considerations.

G. Address Offset Duration, Monitoring, and Management.

The EIS should include provisions for the continued monitoring, operations and maintenance of all mitigation undertaken to address project impacts. The Council on Environmental Quality's recent guidance memorandum emphasizes the importance of ensuring that mitigation measures are implemented. Mitigation measures should address "the intended start date and duration of the mitigation commitment" and "monitoring plans and programs."[47]

VI. Project Routes Should Avoid Areas of High Biological Importance

Route selection is the most important factor in determining the impact of the Project on sage-grouse. The Conservancy recommends avoidance of areas that have high biological value or are considered priority habitat when determining the final route selection.

Of particular concern, we note that several of the alternative routes would pass through crucial breeding areas, or breeding density areas as defined by Doherty et al (2010). *The Sage-Grouse Breeding Bird Density Map* (Doherty et al 2010), which was coordinated and funded by BLM, provides a spatially explicit map of identifiable population concentrations, or priority habitat, for sage-grouse. These breeding density areas are highly important to the conservation of sage-grouse populations range-wide. We note that this important analysis was not referenced in the DEIS and recommend it as crucial information for inclusion in the final DEIS.

Protection of breeding density areas, or core areas, has been endorsed by the U.S. Fish and Wildlife Service as an effective approach to the long-term conservation of sage-grouse. The Conservancy believes that the 75% breeding density areas represent a scientifically defensible definition of priority habitat for the breeding, nesting and early brood rearing phases of sage-grouse life history. Protection of the 75% breeding density areas offers a highly efficient way to protect the best sage-grouse breeding habitat, as 75% of the known breeding population can be conserved within about 27% of the species range (Doherty et al 2010).

Specific Comments on Idaho Route Selection.

As best as we can determine, as *The Sage-Grouse Breeding Bird Density Map* (Doherty et al 2010) and data were not incorporated into the DEIS route analysis, several of the alternate routes would impact 25%, 50% and 75% breeding density areas. These alternative routes include:

- **Alternative 5B** crosses through a 75% breeding density area. The Conservancy recommends that this route be rejected.

[47] Council on Environmental Quality. 2010. Draft Guidance for NEPA Mitigation and Monitoring. Memorandum for heads of federal Departments and Agencies. From Nancy Sutley, Chair CEQ at 8.

- **Alternative 7H**, outside of Oakley, crosses through the center of a 50% breeding density area. Given the significant importance of this habitat to the long-term survival of sage-grouse, the Conservancy recommends this route be rejected.
- **Alternative 7I**, east of Rogerson, crosses through the center of a large 25% breeding density area, which represents the "best of the best" of sage-grouse breeding habitat. The Conservancy strongly recommends this route be rejected.
- **Alternative 9E** in Owyhee County crosses through a 75% breeding density area. The Conservancy recommends that this route be rejected.

Specific Comments on the Wyoming Route Selection

We support routes, such as Segment 2, which follow the Governor's designated Executive Order two-mile wide transmission line corridor. Concentrating transmission lines through this specific portion of Core Population Areas will help to minimize impacts to Core Population Areas and other natural resources. This segment also runs along existing transmission line routes, along the highly disturbed I-8O to Wamsutter corridor.

Route Concerns

- **Segment 1EB** crosses through the Shirley Basin Wyoming Bird Conservation Partnership priority wetland area, one of only nine in Wyoming. The Conservancy recommends that this route be avoided.

- **Segment 4 (Feasible Alternative – 4B,D & 4D,E)** crosses through the Bear River and Green River Basins Wyoming Bird Conservation Partnership priority wetland areas, two of only nine in Wyoming.[48] The Conservancy recommends that this route be avoided.

- **Segment 4 (southern-most route, Feasible Alternative – 4B,C & 4C,E)** crosses through the Bear River and Green River Basins Wyoming Bird Conservation Partnership priority wetland areas, two of only nine in Wyoming. The Conservancy recommends that this route be avoided.

VII. The Density Disturbance Calculator Appears to Drive Development Toward Pristine or Undisturbed Landscapes.

The Density Disturbance Calculator (DDC) discussed in Appendix J is described as "a tool designed to measure habitat loss within the Key Habitat/Core Area." The concept appears to be focused on whether the amount of disturbance within the project footprint (defined by a 4 mile

[48] Copeland, H., S. Tessman, et al. (2010). "A geospatial assessment on the distribution, condition, and vulnerability of Wyoming's wetlands." Ecological Indicators **10**(4): 869-879.

buffer around the right of way) would disturb greater or less than 5% of the "suitable habitat" within the project footprint.

Our primary concern with this approach is that it seems to drive the siting of infrastructure development towards pristine landscapes and penalizes development that piggybacks with existing infrastructure, such as co-locating transmission lines in a highway corridor. Furthermore, it appears that projects with a larger impact and footprint in sage-grouse habitat could be viewed favorably over projects with a smaller footprint based on this calculator. As an example, this approach would penalize a project that impacted only 10 acres if there were only 20 acres of suitable habitat, as that would be 50% of available habitat, but a project that impacted 100 acres out of 2000 acres of suitable habitat would be acceptable, because that would represent 5% of suitable habitat. This would result in more acres disturbed, even though it results in a lower “density of disturbance.” The DDC appears to encourage development in undeveloped habitat just to stay below the 5% density disturbance threshold.

NLRA Steering Committee <steering_committee@nlralliance.org>

10/25/2011 07:51 PM

To gateway_west_wymail@blm.gov

cc Sharon Rodeman <slrodeman@hotmail.com>, Sally H Sarvey <ssarvey@bresnan.net>, Kenneth C Lay <kchasel@me.com>, KENNETH G LAY

bcc

Subject Northern Laramie Range Alliance comments on Gateway West routing

To Whom It May Concern:

Attached please find comments of the Northern Laramie Range Alliance on the proposed Gateway West transmission project, addressed to Mr. Walt George. We also are sending a copy by USPS priority mail.

Sincerely,

The Northern Laramie Range Alliance
by its Steering Committee

Bret Frye
Kenneth Lay
Willard McMillen
Sharon Rodeman
Sally Sarvey
Tom Swanson
Diemer True

NLRAsubmissionGatewayWest10.25.2011.pdf

NORTHERN LARAMIE RANGE ALLIANCE

October 25, 2011

BY PRIORITY MAIL AND E-MAIL

Mr. Walter George
Gateway West Project
Bureau of Land Management
PO Box 20879
Cheyenne, WY 82003

Dear Mr. George:

Re: Gateway West Transmission Project – Segment 1 Routing

The purpose of this letter is to convey the view of the Northern Laramie Range Alliance ("NLRA" or "the Alliance") concerning the routing of Segment 1 of the Gateway West project between the Windstar and Aeolus Substations in the State of Wyoming. The Alliance strongly supports the route designated in the Draft Environmental Impact Statement ("DEIS") as "1E-C". We strongly oppose the two other routes currently under consideration (Routes 1E-A and 1E-B), both of which would traverse western foothills of the Northern Laramie Range.

NLRA has considered carefully the principal arguments advanced by Pacificorp/Rocky Mountain Power (the "Sponsors") in support of Routes 1E-A and 1E-B. We find that neither of these reasons is persuasive:

- Pacificorp/Rocky Mountain Power says it needs "redundancy" – i.e., a backup corridor in the event that the main corridor has to be shut down for some reason. But there are many stretches of the Gateway West line that are being built within the existing corridor, and Alternative 1E-C – along the existing corridor – would meet all the line-spacing criteria established by the Western Electricity Coordinating Council (WECC) that oversees these issues.

- Pacificorp/Rocky Mountain Power also says it may want to service wind development in in the northwest part of Albany County. But this development is unlikely: Those are core sage grouse areas, where wind and transmission development would violate State policy. And even if such development occurs, it easily can be served by spur lines from the Aeolus Substation. A new corridor is not needed.

And there are other important reasons to oppose the unnecessary construction of a "branch" corridor east of the main transmission line:

- Alternative 1E-A would cross sage grouse core area outside an existing transmission line corridor, which is inconsistent with the Governor's executive order. Going around

the core area along alternative 1E-B will require significant removal of trees on private lands which can be avoided by adopting alternative 1E-C.

- Both 1E-A and 1E-B are significantly longer than alternative 1E-C and will result in many more impacts to all natural resources including wildlife, vegetation, cultural resources, etc.

- Alternative 1E-C uses an existing transmission corridor where impacts would be significantly less.

- Both alternative 1E-A and 1E-B impact much more private land than alternative 1E-C, which crosses government (BLM) land to a far greater extent.

- Routes 1E-A and 1E-B both are significantly longer than 1E-C and would be more costly to construct, ultimately imposing added burden on ratepayers.

NLRA is a citizen group with more than 900 members dedicated to protecting the Northern Laramie Range from industrial development, including energy and transmission infrastructure. It came together originally in the spring of 2009, primarily in order to encourage Pacificorp and its Rocky Mountain Power subsidiary to locate the Gateway West project away from the mountain areas of Converse and Albany Counties. The Alliance has been active since then in pursuit of responsible energy siting in Albany, Converse and Natrona Counties.

In closing, we noted with concern recent press reports that the U.S. Department of the Interior has targeted the Gateway West Project for some form of accelerated treatment in the review and approval process. This is unfortunate: Public input to government and public-utility decision-making on siting for huge infrastructure projects is essential. You and your colleagues in BLM have done an excellent job in ensuring that opportunities for this input are available, while keeping the process moving with all deliberate speed. It would be unfortunate if the Interior Department, in the interest of short-term expediency, were now to truncate opportunities for thorough public discussion. We would appreciate your conveying our concern to the appropriate Interior Department officials, notably Secretary Salazar.

Thank you very much, in advance, for your kind attention.

Sincerely,

The Northern Laramie Range Alliance
by its Steering Committee

Bret Frye
Willard McMillen
Sally Sarvey
Diemer True
Kenneth Lay
Sharon Rodeman
Tom Swanson

cc: Hon. Matt Mead, Governor, State of Wyoming

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- Both alternative 1E-A and 1E-B impact much more private land than alternative 1E-C, which crosses government (BLM) land to a far greater extent.

- Routes 1E-A and 1E-B both are significantly longer than 1E-C and would be more costly to construct, ultimately imposing added burden on ratepayers.

NLRA is a citizen group with more than 900 members dedicated to protecting the Northern Laramie Range from industrial development, including energy and transmission infrastructure. It came together originally in the spring of 2009, primarily in order to encourage Pacificorp and its Rocky Mountain Power subsidiary to locate the Gateway West project away from the mountain areas of Converse and Albany Counties. The Alliance has been active since then in pursuit of responsible energy siting in Albany, Converse and Natrona Counties.

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by its Steering Committee

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Willard McMillen	Sharon Rodeman
Sally Sarvey	Tom Swanson
Diemer True	

cc: Hon. Matt Mead, Governor, State of Wyoming

NORTHERN LARAMIE RANGE ALLIANCE

PO BOX 3215
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CASPER WY 826
PM
26 OCT
2011

MR WALTER GEORGE
GATEWAY WEST PROJECT
BUREAU OF LAND MANAGEMENT
PO BOX 20879
CHEYENNE WY 82003

100334

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NORTHERN LARAMIE RANGE ALLIANCE

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Sally Sarvey
Diemer True
Kenneth Lay
Sharon Rodeman
Tom Swanson

cc: Hon. Matt Mead, Governor, State of Wyoming

From:
Sent:
To:
Subject:

Name:
David J Welch

Organization:
Oregon-California Trails Association

Mailing Address:
4374 Vashon Dr NE

Mailing Address 2:
`

City:
Lacey

State:
WA

Zip:
98516

Daytime Phone:
360-923-0438

E-mail:
welchdj@comcast.net

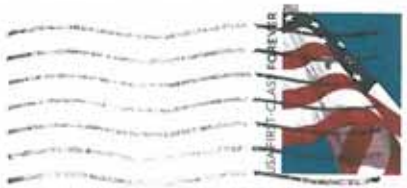
Confidential:
No

DEIS Location:
chapter 3.3

Comment:
Issue: Impact to historic trails and their setting.
The proposed route (4F) appears to have not been subjected to a detailed survey. At one point it is stated that a survey will be conducted if the route is selected. It can be concluded from this statement that the potential adverse impacts were not a primary aspect of the selection process (which they should be). It is insufficient to state that impacts are to be addressed through mitigation to be determined later.

A comparison of those photographs that include existing transmission lines and those do not illustrates the value of uncluttered landscapes. Much is lost even when the trail is of high quality when a transmission line crosses the view. The old transmission line near Demsey Ridge illustrates that point. New lines should be placed in areas where other significant intrusions (roads, railroads, etc.) extist. The presence of a few old ranching buildings or similar low contrast intrusions does not just addition of a transmission line.

Bureau of Land Management
Gateway West Project
PO Box 20879
Cheyenne, WY 82003



Bureau of Land Management
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PO Box 20879
Cheyenne, WY 82003

100297

A20033701A B047

Draft EIS Comment Form

Gateway West Transmission Line Project
Draft EIS comment period: July 29, 2011 - October 28, 2011

100297

Date: 10/16/11

First Name: Fern Last Name: Linton

Organization or Office Name: OCTA

Mailing Address: 405 Wilkes Dr City: Green River State: WY Zip: 82935

Daytime Phone: 875 7584 Email: flinton@wyoming.com

☐ Please check here if you wish for your personal information to remain confidential*

*If you wish for your contact information to remain confidential, BLM will protect the personal information that you submit to the extent allowed by law. However, the information may be subject to the Freedom of Information Act (U.S.C. etc.). See privacy note on reverse.

Please submit your comments by October 28, 2011. Information submitted on this form is being voluntarily provided solely for the purpose of commenting on the Gateway West Transmission Line Project.

Comment:

I have read the Draft EIS for the Gateway West Transmission Line Project. I am particularly concerned with impacts to historic/cultural trails & sites along the entire project area.

Wyoming & Idaho have some of the most well preserved Mormon & Trails throughout the whole Historic Trail System. Viewshed at this time in many areas is typical 1840-1850 viewshed - very pristine/no modern invasion. The transmission line will severely impact this setting. There are many locations where transmission line corridor (along the transmission line) crossing over / crossing are at 90° to trail. There will be impacts to the NSO guidelines set in BLM District RMP's for historic trails. (over)

1/2

To mail this comment form please send to:

Bureau of Land Management | Gateway West Project | P.O. Box 20879 | Cheyenne, WY 82003

Comments may also be submitted via email to: Gateway_West_WYMail@blm.gov or online at www.wy.blm.gov/nepa/cfodocs/gateway_west

continued on back

Name: Fern Linton OCTA

In the Rock Springs Kemmerer BLM District
There are several alternatives and it appears
that the proposed (perferred) alternative may not best
fit the needs of Trail preservation. I have studied
your tables & charts and although impact will
occur to historic trail sites in all your alternatives the least restrictive
alternatives appear to be
Section 4, Alternatives BCDE
perhaps A H?
mitigation issues must be addressed in your
PA process.
Avoidance - Reduction,
Compensation, + Modification are appears to
be important issues to address with the
least amount of impact to the historic trail
system.
KOP's with initial monitoring need to
be established and consistently
revisited - not only for Multiple Viewshed
issues from KOP's but for individual Viewshed
issues at each KOP.
The Possible impacts: graves, campsites, river crossings
and up to 7 different trails a huge damage to Preservation
of our historic culture & History.
Fern Linton

Privacy Note: Comments, including names and addresses of respondents, will be made available for public review after the close of the official comment period. Before including your address, phone number, email address or other personal identifying information with your comments, please be advised that your entire comment, including your personal identifying information, may be made publicly available at any time. Although you may ask the BLM in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so. All submissions from organizations and businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be available for public inspection in their entirety.

2/2

100333

"Ken Miller"
<kmiller@snakeriveralliance.org>

10/28/2011 11:59 AM

Please respond to
<kmiller@snakeriveralliance.org>

To <Gateway_West_WYMail@blm.gov>

cc

bcc

Subject Gateway West Transmission Line Project

Dear Project Manager:

Please accept the attached comments from the Snake River Alliance in response to the Draft EIS for the Gateway West Transmission Line.
If you have any problems opening the attached document, please do not hesitate to call me or my office.
Regards,

Ken Miller

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[illegible] [illegible] [illegible]o[illegible] [illegible] [illegible]o[illegible]
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The Snake River Alliance works for responsible solutions to nuclear waste and a nuclear-free future. It seeks to strengthen Idaho's economy and communities through the implementation of renewable energy resources in Idaho and the promotion of energy efficiency and conservation.

Oct 2011 Gateway West Comments Final.doc

Comments of the Snake River Alliance
On the Draft Environmental Impact Statement
Gateway West Transmission Line Project

Submitted by
Ken Miller, Clean Energy Program Director, Snake River Alliance

October 28, 2011

Walt George
Project Manager
Gateway West Transmission Line Project Draft EIS
Bureau of Land Management
P.O. Box 20879
Cheyenne, Wyoming 82003

The Snake River Alliance ("Alliance") appreciates the opportunity to provide comments relating to the Bureau of Land Management's draft environmental impact statement (DEIS) for the Gateway West Transmission Line Project.

The Snake River Alliance is an Idaho-based non-profit organization, established in 1979 to address Idahoans' concerns about nuclear safety issues. In 2007, the Alliance expanded the scope of its mission by launching its Clean Energy Program. The Alliance's energy initiative includes advocacy for renewable energy resources in Idaho; expanded conservation and demand-side management programs offered by Idaho's regulated utilities and the Bonneville Power Administration; and development of local, state, regional, and national initiatives to advance sustainable energy policies. The Alliance is pursuing these programs on behalf of its members, many of whom are customers of Gateway West proponents Idaho Power and Rocky Mountain Power and who are interested in advancing progressive energy policies. Other commenters are addressing the far-reaching environmental impacts presented by the Gateway West proposal. Our comments concentrate on the narrower topic of whether the proponents have sufficiently addressed the issue of the project's stated purpose and whether this project is needed to meet future energy demands in the proponents' respective service areas.

Purpose and Need

We appreciate the level of detail with which the BLM and other federal entities have dedicated to analyzing what is arguably the largest single electricity transmission project proposed in the United States in several years. The federal agencies and the proponents, Idaho Power and PacifiCorp (doing business as Rocky Mountain Power) have also undertaken significant public outreach efforts to attempt to explain the project to interested individuals, local governments, and other parties in Idaho and Wyoming. The willingness by all involved to revise the original application not once but four times from October 2007 to January 2010 indicates all are dedicated to trying to find a workable resolution to this complicated project – if one exists.

That said, we believe DEIS Section 1.3 (Proponents' Purpose and Need for the Project) as currently construed fails to sufficiently justify this project. For this project to move forward, we believe that utility proponents and the FEIS must make an adequate case for Gateway West, and that case has not yet been made. Given that this project would consist of 1,103 miles of new 230-kilovolt and 500kV transmission line at an estimated cost of $2 billion, or more than $2 million a mile, and given the breadth of concerns that have been expressed to date, we believe the bar in establishing Purpose and Need for this project is appropriately very high and that the Purpose and Need section has been too narrowly framed in this DEIS.

For reasons that are perhaps understandable, proponents are vague in discussing what kinds of energy would be placed on this new transmission system. What we do know is that the eastern terminus of the line is the Windstar Substation at Glenrock, WY, which is also, not coincidentally, the home of proponent PacifiCorp's four-unit Dave Johnston coal-fired power generation complex. Idaho Power is not a participant in the Dave Johnston plants; its east side coal assets consist of its one-third participation (with PacifiCorp) in the Jim Bridger complex, also in Wyoming. While it is true that PacifiCorp's Integrated Resource Plans (IRPs) envision significant additions of wind power to its system, it must be presumed that much of the energy that would occupy these transmission lines would be a mixture of coal and wind and perhaps other unidentified resources such as natural gas or geothermal. The lack of information about whether this line will facilitate additional clean energy development or expanded fossil fuel generation makes it difficult to support this project at this stage. It is possible that the project proponents can better explain in the FEIS the kinds of energy that will access this project, and if so we urge them to do so. So long as Gateway West is a project that will facilitate the transfer of more coal-fired generation into Idaho and markets to the West, we believe support for the project will be minimal.

In light of that and on the issue of coal-fired power generation: Given that this project has a direct connection to existing coal operations, we believe the Purpose and Need section in the FEIS must include potential environmental implications of facilitating the transmission of coal-fired generation. This is particularly true in light of the growing trend across the United States for forward-thinking utilities to opt against building new coal-fired generation plants and also to decommission existing plants ahead of their scheduled retirement dates. As we will see in the Pacific Northwest with the early retirement of the Boardman coal plant in Oregon and the Centralia plant in Washington, these actions will result in newly freed capacity on existing transmission lines – capacity that can be used to accommodate appropriately sited renewable energy resources.

We do not question that the existing east-west transmission system across southern Idaho and Wyoming has known constraints during certain times of the year. We also agree with the proponent utilities that the existing transmission infrastructure must be improved to resolve grid reliability and stability issues. We simply question whether Gateway West is the solution to that problem. The DEIS states at 1-1 that:

> *The proposed transmission line is needed to supplement existing transmission lines in order to relieve operating limitations, increase capacity, and improve reliability in the existing transmission grid, allowing for the delivery of up to 3,000 megawatts of additional energy for the Proponents' larger service areas and to other interconnected systems. The Project is principally necessary to serve future needs in Utah and Idaho, though other markets may also be served, including Wyoming's oil and gas field electricity needs.*

Idaho Power's current average firm load is less than 2,000 average megawatts, which is served primarily by Idaho Power's total nameplate generation of 3,276MW, much of which serves its major load centers from the Hells Canyon hydropower complex *to the west of the main load centers.* Furthermore, Idaho Power's 2011 IRP does not envision significant east side market purchases or plant development during the 20 years covered by the IRP. The IRP also does not include Gateway West as a committed resource, although it did model one IRP portfolio that was based largely on Gateway West being built in 2022 and allowing Idaho Power to access an additional 500MW of transmission capacity for market purchases from the east side of Idaho Power's service area (2011 IRP at P. 96).

The Idaho Power 2011 IRP, while not agnostic on the issue of Gateway West, is as vague as is the Purpose and Need section in this DEIS. From Page 54 of the IRP:

> *The project cost and capacity is expected to be shared between Idaho Power and Rocky Mountain Power based on load service requirements and third-party transmission service request obligations.*
>
> *Significant renewable resource development potential exists in Wyoming and southern and eastern Idaho. Idaho Power's transmission system is currently limited in its ability to transmit energy from new resources from the east to the major load centers in Idaho. Gateway West will provide new transmission capacity to integrate and deliver any such selected resources in addition to meeting third-party transmission service requests under Idaho Power's OATT (open access transmission tariff).*

While we stipulate that *some* improvements are needed on the existing southern Idaho and Wyoming transmission infrastructure, there are serious questions whether a project of this magnitude and all of its associated economic, environmental and other risks can be justified at this time. For these and other reasons, we are struggling to understand the value of a share of a 3,000MW transmission line to Idaho Power and its customers. We do not question the need for improvements to the transmission infrastructure, particularly in southern Idaho. Rather, we question whether a project as large as Gateway West as identified and justified in the DEIS is the solution to addressing these needs.

The DEIS cites at P. 1-9 in 1.3.3.1 (Existing Transmission System Constraints; General Studies) a 2006 Department of Energy study that says in part:

> *This area is rich in coal and wind resources that, if developed, could provide important sources of low-cost energy and fuel diversity while improving domestic energy self-sufficiency and enhancing the economic development in the resource areas. This resource development scenario has been thoroughly explored in analysis sponsored by the Western Governors Association.*

Missing in this section, however, is the fact that, since the 2006 DOE study was released, two of the largest non-proponent possible destinations for power carried by Gateway West (Oregon and Washington) have adopted renewable portfolio standards that make the importation of coal-fired generation that would be carried by Gateway West nearly impossible. Other potential target states for the power, Montana, Nevada, and California, have increased the requirements in their RPS's. In short, the markets for much of the power that the proponents say would be carried by Gateway West are disappearing, while the demand for distributed generation resources closer to utility load centers is increasing, further reducing the need for large transmission projects such as this

Proponents and the DEIS note at P. 1-1 that the Federal Energy Regulatory Commission (FERC) requires that utilities "must plan, design, construct, operate ,and maintain an adequate electric transmission system that meets not only the customers' energy demands (measured in megawatt-hours) but also meet the customers' peak load demands (measured in megawatts). Both are important in determining the need for the project." We agree, but we would also point out that Section 1.3.4 of the DEIS notes:

> *As of June 2011, all of the generators requesting transportation on Gateway West were wind energy (PacifiCorp 2011).*

The sizeable amount of wind that proponents say would be accommodated by Gateway West, while valuable as an energy resource, is of dubious capacity value for meeting peak demand needs due to what both utilities describe as the variability of the resource. A more appropriate response to meeting peak demand challenges is to aggressively expand utility demand response programs that serve to reduce peak at critical times. We believe the FEIS should more fully examine the value that expanded demand response and other mitigating measures such as distributed generation might have in determining the need for this project.

In addition, we note that the Northwest Power and Conservation Council's 6th Power Plan for the four-state Pacific Northwest region downplays the need for significant amounts of new nonrenewable energy development. In fact, the 6th Plan, which serves as the region's electricity roadmap, notes that the region can satisfy fully 85 percent of its new load growth through energy efficiency and conservation, with the balance coming mostly from renewables such as wind. Based on the information contained in the DEIS, it is unclear whether the amount of new generation that would fill a new 3,000MW transmission line (or lines) will occur in the foreseeable future. We also note that the most recent assessment by the Resource Adequacy Forum (http://www.nwcouncil.org/library/2007/2007-9.htm) and the Northwest Power and Conservation Council and the Bonneville Power Administration indicates that the Pacific

Northwest is adequately positioned to meet expected load growth for the short term and mid-term future. While the Pacific Northwest Adequacy Assessment does not project resource adequacy at the utility level, and while the Council is in the process of adopting a new standard, it appears clear that the region identified as a possible target for power that would be delivered by Gateway West is already well positioned to meet its anticipated new load with existing and forecasted resources. We recommend that the FEIS more fully examine the issue of regional adequacy and in particular the analysis contained in the Power Council's 6th Power Plan.

Second Line

Since there is not yet a preferred alternative or route for Gateway West, the issue of identifying routes remains open and difficult to address with any precision. Still, we question the need for two separate 500KV lines between the Populus substation in southeast Idaho and the Hemingway substation in southwest Idaho, through the existing Midpoint substation and the proposed Cedar Hill substation in Idaho's Magic Valley. Erecting an additional line will only complicate what may already be insurmountable challenges facing proponents. We recommend that the FEIS undertake a much more thorough analysis not only of the benefits of a second line, but equally important the economics of such a line and whether the risk mitigation from such a line justifies the added expense.

Other Electric Transmission Lines in the Region

While we agree with the suggestion in the DEIS that no single generation or transmission project alone would "trigger" the need for this project, we take issue with section 1.7.3.3 on Pages 1-27 and 1-28 that:

> *2. Gateway West has sufficient justification to be built in the absence of the other proposed transmission lines. It does not require the construction of another transmission line to be put into service. Therefore, it can and would proceed without other actions taken previously or simultaneously, failing the second test for connected action.*

As stated above, proponents and the DEIS state that "other markets may also be served" by Gateway West. In fact, this is a primary driver for Idaho Power's proposed 500kV Boardman to Hemingway transmission line that would link the Hemingway substation *which is at the western terminus of the proposed Gateway West line* with markets in the Pacific Northwest. Current transmission from Idaho Power's western service territory to those markets is frequently constrained and in our view could not accommodate additional demand from the power that Gateway West would provide to the Hemingway substation. There clearly is a nexus between the two proposed projects.

Conclusion

The Snake River Alliance is mindful of the existing transmission infrastructure challenges facing both of the utility proponents and for that matter public and investor-owned utilities

throughout our region. As stated above, we do not oppose all transmission projects, and our current position regarding Gateway West is not taken lightly. At this point, and given what we view as a lack of sufficient information in the DEIS Purpose and Need sections, we urge BLM and the proponents to carefully assess whether this project is truly necessary, and just as important whether more modest enhancements to the existing transmission systems would accomplish the same goals as Gateway West but without the enormous cost to utility customers and without the myriad permanent environmental and land management challenges posed by this project. We recommend that the proponents and the BLM consider these issues as they prepare the Final Environmental Impact Statement.

The Alliance once again appreciates the opportunity to provide its comments regarding the Bureau of Land Management's Draft EIS in the Gateway West Transmission Line Project.

Respectfully submitted,

Ken Miller
Clean Energy Program Director
Snake River Alliance
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kmiller@snakeriveralliance.org
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From:
Sent:
To:
Subject:

----- Forwarded by Joy Mclain/WYSO/WY/BLM/DOI on 10/04/2011 01:19 PM -----

"Kendall Van Dyk" <KVanDyk@tu.org>
10/04/2011 11:20 AM

To <wgeorge@blm.gov>
cc <Gateway_West_WYMail@blm.gov>
Subject Gateway West

Mr George--

Trout Unlimited would like to send comments in on the Gateway West project.
If there is any way you could send me the shape files for our GIS person, that would be great.

Kendall Van Dyk
Western Energy Coordinator
Trout Unlimited
16 Alderson Avenue #A
Billings MT 59101
406.371.5076
kvandyk@tu.org
www.tu.org

"Cathy Purves"
<CPurves@tu.org>
10/27/2011 04:30 PM

To <Gateway_West_WYMail@blm.gov>
cc
bcc
Subject Trout Unlimited comments to Gateway West DEIS

Walt,

Please accept TU's comments on the Gateway West DEIS. Thanks.

Cathy

Cathy Purves
Science & Technical Advisor
Trout Unlimited
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Final TU Comments to Gateway West Draft EIS-10-2011.pdf

October 28, 2011
Sent via email to: Gateway_WestWYMail@blm.gov and U.S. Postal Mail

Walt George
Project Manager
Bureau of Land Management
Wyoming State Office
P.O. Box 20879
Cheyenne, WY 82003

RE: Comments to the Gateway West Transmission Line Project Draft Environmental Impact Statement; Wyoming, Idaho, and Nevada

Dear Mr. George,

Trout Unlimited appreciates the opportunity to comment on the Draft Environmental Impact Statement (DEIS) for the proposed Gateway West Transmission Line Project (GWW). The proposed project is to include the location of a 1,103 mile-long electric transmission line from the proposed Windstar Substation near the Dave Johnston Power Plant near Glenrock, Wyoming to the proposed Hemingway Substation near Melba, Idaho. The requested Right of Way (ROW) width is 300 feet but could range from 125 feet to 350 feet, depend on various circumstances. While approximately 610 miles of the proposed route is located within or adjacent to existing corridors, the remaining project will require the development of new corridor access.

The pace and scale of renewable energy development projects have exploded since 2009 when the DEIS analyses occurred. In Wyoming alone, 12 new wind project proposals and 3 transmission proposals are under various stages of NEPA analysis. In Idaho, many similar renewable projects are underway as interests surge. As these developments begin physically crossing the landscape, cumulative impacts begin to take their toll. Trout Unlimited's (TU) primary concerns are with stream and river sedimentation issues caused by an increase in road access development, surface damages to the environment adjacent to streams and rivers, and river and stream crossings particularly in sensitive coldwater fisheries habitat. We also believe that renewable energy development, though highly available on our public lands, is not appropriate everywhere on public lands. Our comments will address these concerns and offer recommendations that consider the protection of our important fish and wildlife resources while simultaneously supporting responsible renewable energy development.

TU understands the numerous resource and land use plan amendments which must be coordinated and undertaken in order to meet NEPA requirements and comply with 43 Code of Federal Regulations (CFR)

1610.2(c) for the Bureau of Land Management (BLM) and 36 CFR 219.8 with the US Forest Service. Further, we understand that due to the numerous changes and adaptations which have occurred with this proposed project since 2009, the BLM has not offered a preferred alternative but rather will do so in the Final EIS. Since the writing of the DEIS, considerable progress has been put forth on federal and state levels to develop more concise, expeditious, and consistent processes for siting and permitting transmission projects. TU recommends the BLM include all new publications, regulations, and recommendations regarding best management practices in the Final EIS as they relate to renewable energy development. Specifically, the Western Governors' Association (WGA) released their "roadmap" which highlights key information compiled from existing national, regional, and state studies regarding renewable energy development from concept to construction ("Renewable Energy Transmission Roadmap". Western Governors' Association. June 2010).

TU compliments the BLM on the thoroughness of the environmental review, including the implementation of a multitude of environmental analyses applications which assists the reader in understanding the review process and potential consequences of this project.

TU has the following general concerns about the proposed project:

1. Buffer zones for riparian, wetlands, and water bodies lack consistency and widely differ among individual BLM offices in both Wyoming and Idaho. Strong buffer or setback preferences should be incorporated in order to minimize impacts to surface and water bodies where development occurs.

2. Inadequate mitigation and stipulation measures are not consistent among the numerous BLM offices in Wyoming and Idaho. Establishing universal mitigation and stipulation measures at the front of this proposal which provide for protection during the development, construction, and operational phases and contribute toward a more successful and acceptable portfolio for renewable energy development projects.

3. The DEIS's suggested seasonal stipulations should be, at a minimum , universal for all wildlife and fish affected by this project on public lands and especially specific for sensitive species, state species of concern, and threatened/endangered/candidate fish and wildlife species identified as potentially being impacted by the proposed project.

4. Reclamation measures identified in the DEIS should be updated to reflect new standards and technology, including reference to the Wyoming BLM Statewide Reclamation Policy of 2010. Without adequate successful reclamation practices, the proposed project could adversely impact sensitive species and species of concern, in addition to big game habitat and migration corridors.

5. The proposed project crosses through significant acreage of critical winter range for big game species in both states. As more and more wildlife habitat is removed from use through the increased multitude of both renewable and nonrenewable energy development across our public lands, restoration opportunities must be thoroughly and productively developed for functional use.

6. A portion of one of the Alternatives in Wyoming crosses through a portion of the Cokeville Meadows National Wildlife Refuge, that portion which is considered for acquisition between the BLM and the US Fish and Wildlife Service. In addition to the significant bird and wildlife attributes of the

area, it is also an important coldwater fisheries habitat that contains several TU sponsored restoration projects.

Background

TU is a private, non-profit coldwater conservation organization that has more than 144,000 members nationwide dedicated to conserving, protecting and restoring North America's trout and salmon fisheries and their watersheds. Since 1959, TU has dedicated staff and volunteers toward the protection of sensitive ecological systems necessary to support robust native and wild trout and salmon populations in their respective range. TU recognizes that the value of public lands is unparalleled in providing habitat to coldwater fisheries and wildlife. TU's conservation program includes a sportsmen's conservation project that recognizes the importance of protecting public lands for the protection and restoration of wildlife and fisheries, and hunting and fishing opportunities.
In Wyoming, TU has over 1,400 members and 12 state chapters whose members actively enjoy and value the resources of the many streams and rivers contained within the project area. In Idaho, TU is equally active with approximately 2,000 members and 7 state chapters. Members of our chapters regularly participate in on-the-ground restoration and enhancement projects within the Rawlins BLM resource area in an effort to help restore, protect and maintain valuable fisheries habitat.

General Comments

TU is supportive of responsible energy development including renewable energy such as wind, solar, or geothermal, and the necessary transmission infrastructure required to support renewable energy development projects. Transmission line projects, however, can be significant landscape intrusions, causing habitat fragmentation, erosion and sedimentation issues from loss of vegetation, dust, and new roads, impacts to waterbodies, permanent habitat loss, and the opportunity for invasive plants to dominate a landscape.

Based on the numerous alternatives and the levels of impacts which are destined to occur, TU is in support of Alternatives as defined by Sections and discussed below with additional stipulation and mitigation recommendations. We have attempted to provide some overview analysis of the project as it impacts important habitat values and provided rationale for our identified preferred alternatives recommendations.

Landscape Assessment

In light of the increased demand for renewable energy development across our nation's public lands, TU has completed an internal assessment of renewable energy development and associated potential habitat impacts. The landscape-scale review of the proposed Gateway West corridor alignments is based on results from the TU white paper *Broadscale Assessment of Renewable Energy Potential and the Human Footprint (*A. Haak, 2010) report (referred to in this document as the *Renewable Report*). The Renewable Report includes an assessment of development suitability across the western United States. The suitability assessment is based primarily on a human footprint analysis which uses the intensity and extent of anthropogenic impacts on the landscape as a surrogate for loss of biodiversity and altered ecological processes. Lands with a greater human footprint are assumed to be more degraded and therefore potentially more suitable for development than less altered landscapes.

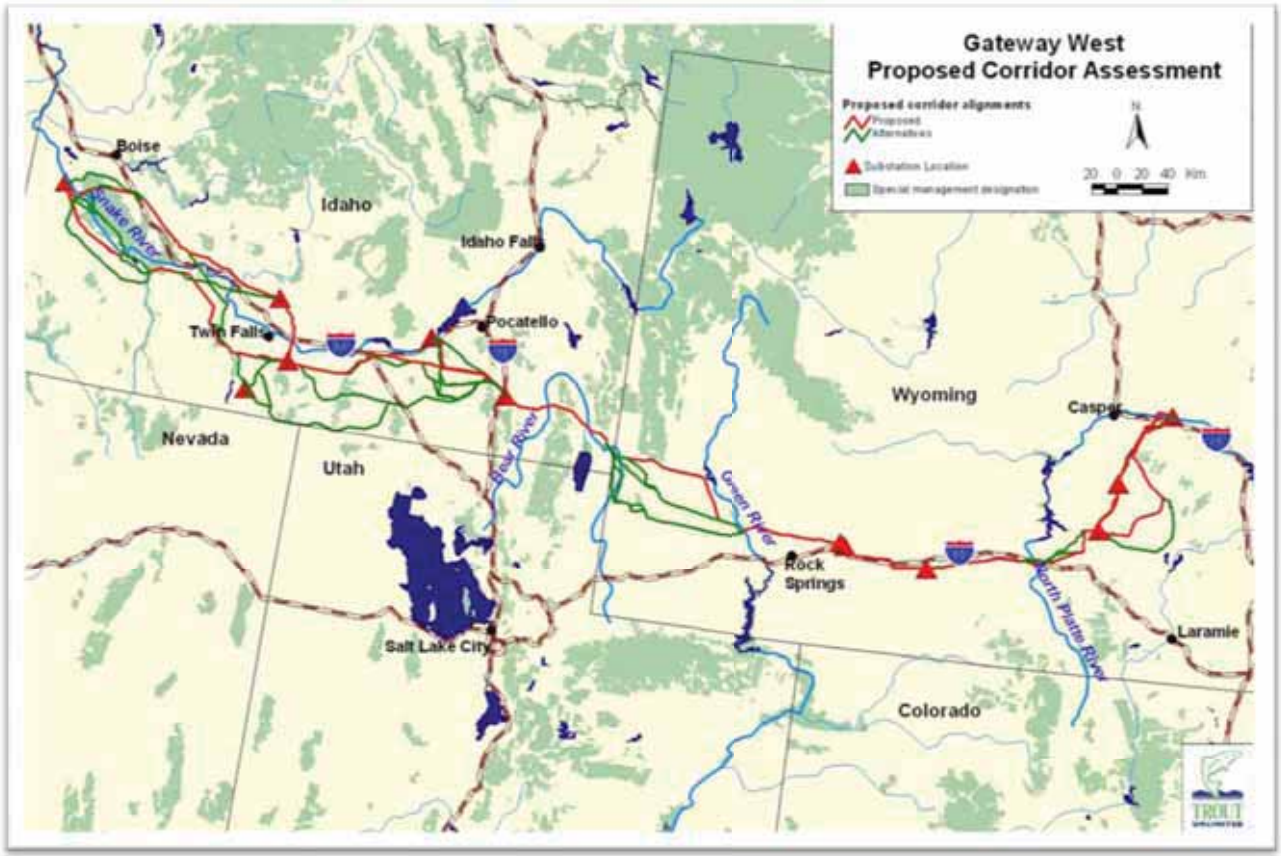

Figure 1. Gateway West proposed corridor alignment and feasible alternatives.

Results of the Renewable Report are used to evaluate the corridor alternatives by analyzing landscape-scale patterns and habitat conditions across the proposed project area. A preferred route is selected based on those alignments that correspond to the most altered landscapes or make use of existing transmission and highway right-of-ways, thus minimizing additional fragmentation of the landscape. Figure 1 depicts the full extent of alternative alignments and associated substations. Special management areas within the region are shown in green on the map.

Figure 2 below depicts the proposed corridor alternatives under consideration in conjunction with results of the development suitability assessment from the Renewable Report. By integrating results of the human footprint analysis with native trout distributions and core sage-grouse habitat, the suitability assessment provides a way to quickly identify some of the proposed corridors that are the most problematic. The first four sections (01W, 01E, 02, 03, and 04) are all associated with landscapes identified in our assessment as not suitable for development often due to the presence of special management areas (e.g. roadless area, wilderness study area, state or federal park), sage grouse core areas or significant coldwater habitat.

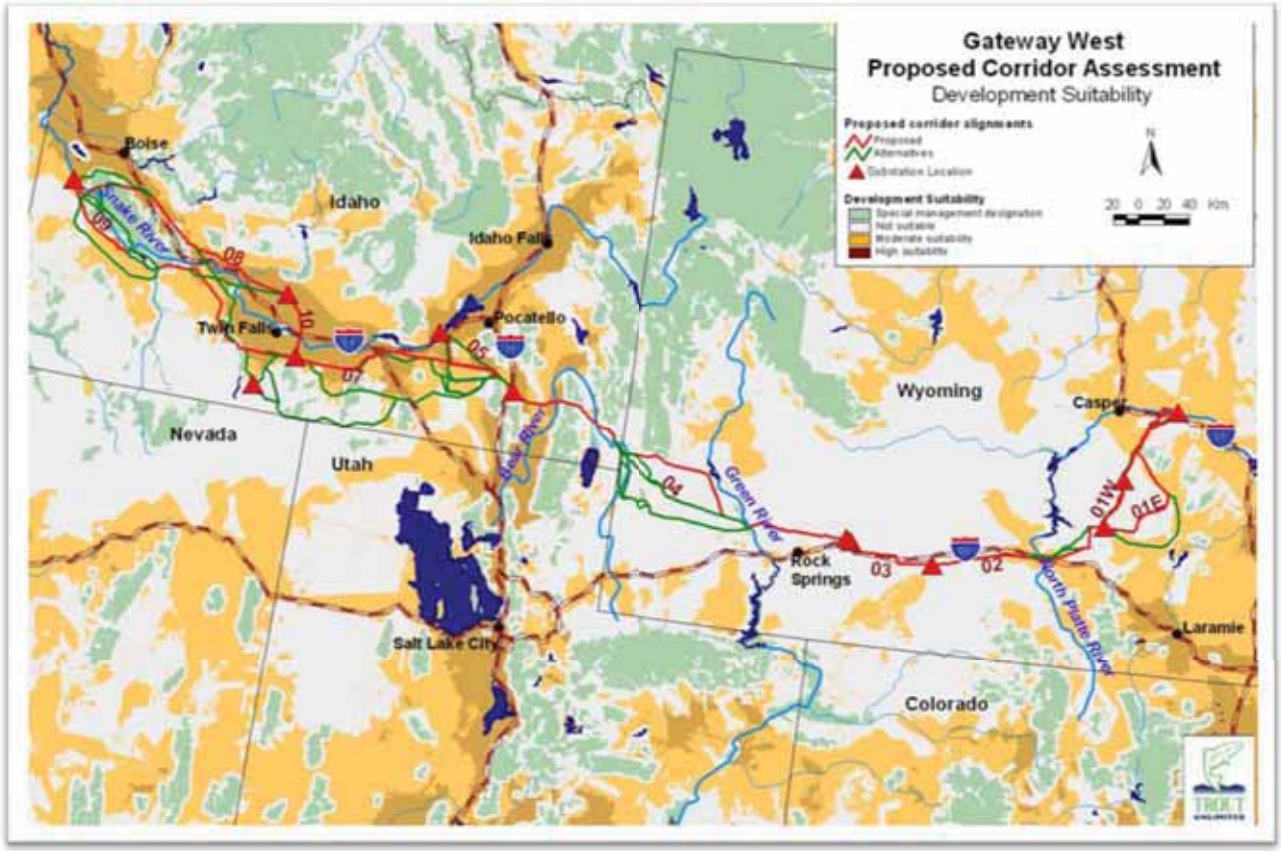

Figure 2. Proposed Gateway West corridor alternatives and results of the development suitability assessment.

Results of the human footprint analysis can provide some additional clarification of landscape conditions. Areas identified as core sage-grouse habitat are based on a broadscale assessment and therefore encompass much of southwestern Wyoming. This designation is the primary driver behind the classification of this region as unsuitable for development. However, by reviewing results of just the human footprint analysis, some inferences can be made about habitat quality within the broader core area. Figures 3 and 4 show the results of the human footprint assessment for these sections of the transmission corridor project.

Using the results of the human footprint assessment as an indicator for habitat integrity it is evident that much of the transmission line in sections 02 and 03 is associated with low quality habitat as a result of generally following the Interstate 80 highway corridor. Site specific assessments associated with the North Platte River and its tributaries will be required to determine the preferred location of roads and towers in order to minimize sediment delivery into this important coldwater habitat. As Figure 3 shows, section 01E is problematic at the landscape scale as both TU's preferred alternative and alternative 01E-B (not shown but located south of 01E as the green line) cross a landscape that is at the lower end of the spectrum for human disturbance. Alternatives 01E-C and 01W parallel each other and are associated with more degraded landscape as well as an existing transmission line thus minimizing additional habitat fragmentation. Therefore, that alternative is shown in purple (01W) on the map as TU's preferred alternative for this section of the transmission system.

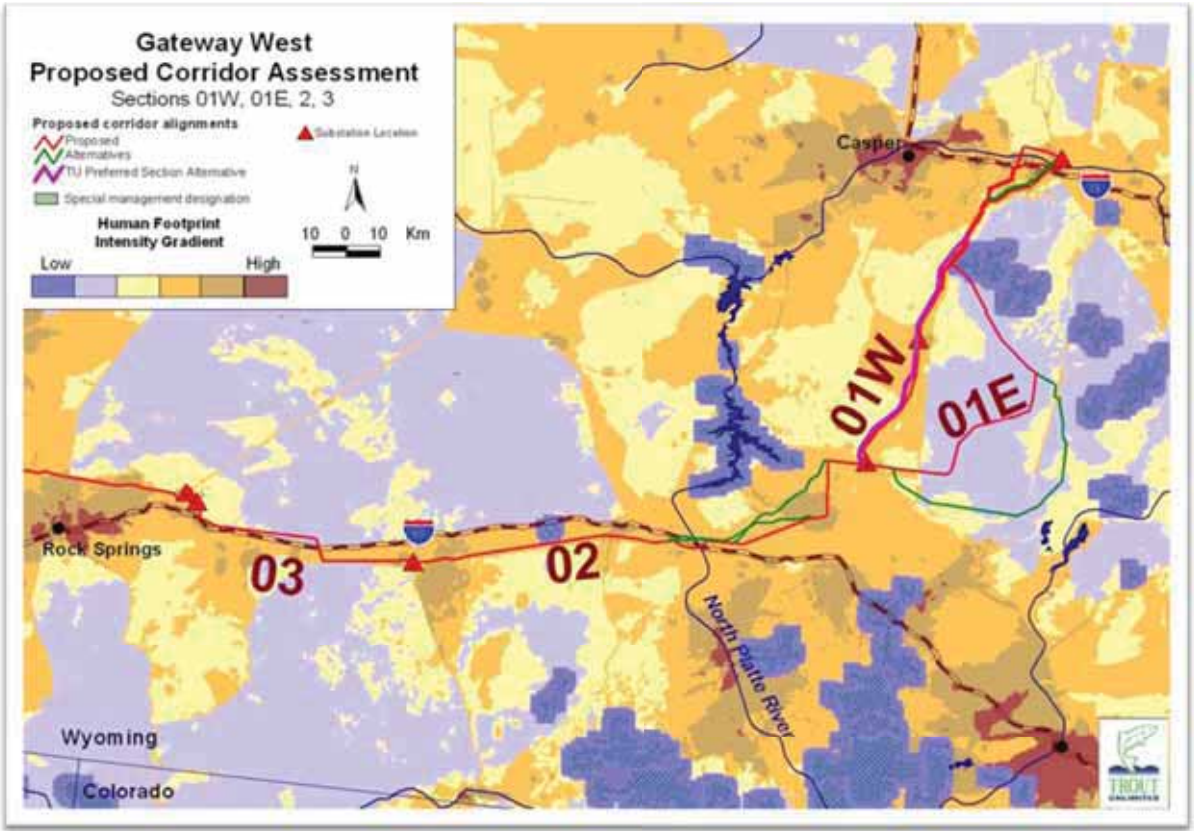

Figure 3. Results of human footprint assessment and alternatives for Sections 01W, 01E, 02, and 03.

Figure 4 shows the results of the human footprint analysis in conjunction with section 04 of the transmission system. The proposed alternative bisects an area that likely provides moderate to high habitat quality in an area designated as a sage-grouse core area. Although alternative 4B-C, TU's preferred alternative, also crosses the sage-grouse core area, it is associated with lower quality habitat and existing corridors so there will be less additional habitat fragmentation. These southern most alternative sections follow existing corridors, highways and railways. From the juncture of alternative 4B-C, we would then support the alternative section that becomes section 4E which follows Wyoming Highway 30.

We would recommend against alternative 4B-D as it follows the most western Wyoming border route, intersecting portions of the Cokeville Meadows National Wildlife Refuge. The Refuge supports one of the highest densities of nesting waterfowl habitat in Wyoming, has potential for the reintroduction of trumpeter swans, and provides significant and important habitat for greater sage grouse, mule deer, elk and pronghorn. In addition, TU has several Bonneville cutthroat trout habitat restoration projects established near the Refuge boundaries and numerous drainages within the Refuge.

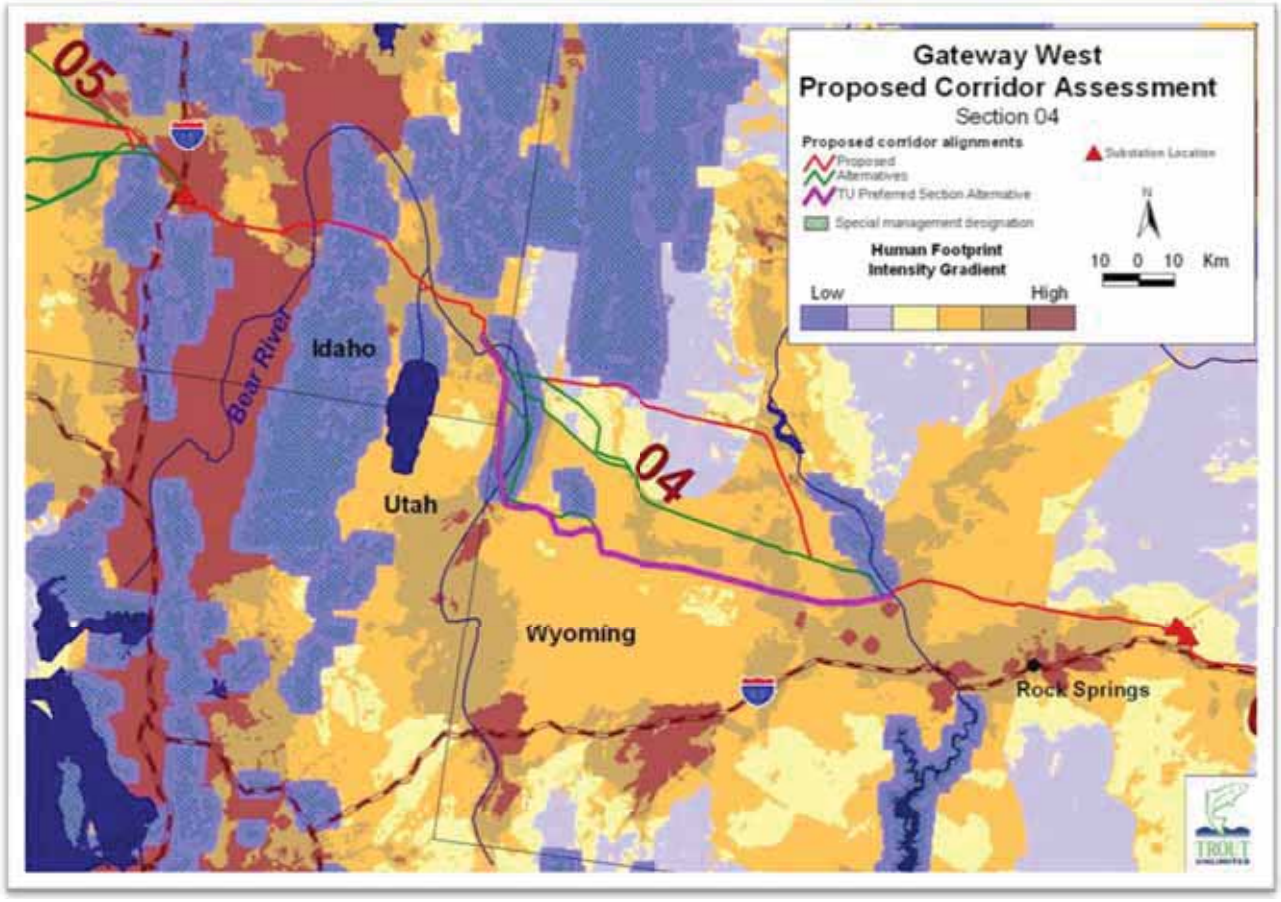

Figure 4. Results of human footprint assessment and alternatives for Section 04.

Figure 5 shows the alternative alignments for sections 07, 08, 09, and 10. In general, TU's preferred alternative is associated with degraded and converted lands so additional habitat fragmentation is less of a concern. Stream crossings or any construction within or adjacent to the riparian area will require site specific analyses to minimize impacts to aquatic resources. Section 09 crosses a number of special management areas including the Snake River Birds of Prey Area and the Salmon Falls Creek Wild and Scenic River. In order to minimize impacts to these important resources we recommend the use of existing transmission corridors and rights-of-way whenever possible. We also prefer stronger buffer setbacks to minimize the potential for soil erosion and damaging sedimentation to important native trout habitat. For this reason, we prefer alternative 9B for section 09 since it parallels an existing transmission line and avoids crossing Salmon Falls Creek in either the eligible or designated wild and scenic river sections.

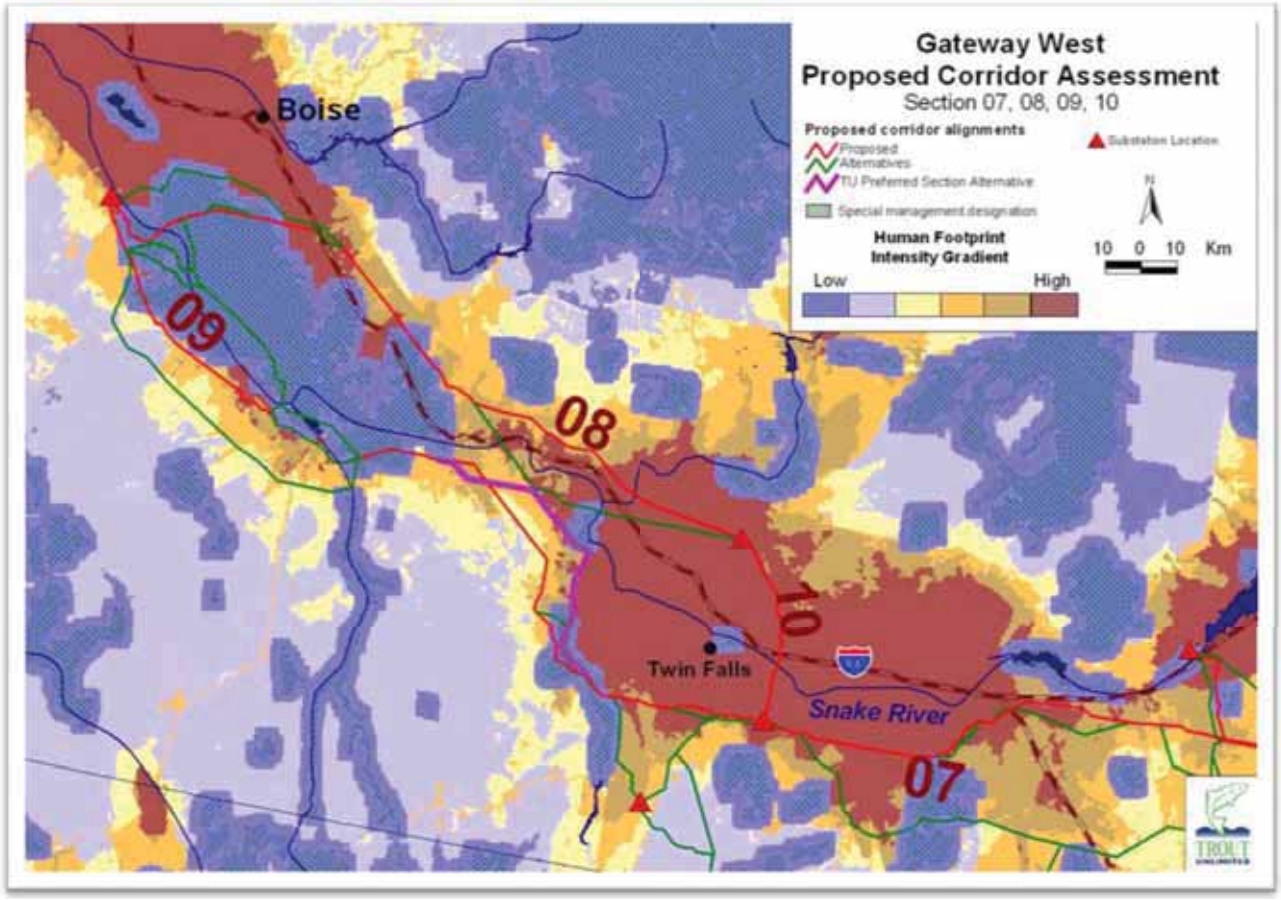

Figure 5. Results of human footprint assessment and alternatives for Section 07, 08, 09, and 10.

The BLM's and the USFS's implementation of a broad Analysis Area generally corresponds to the assessment efforts provided by TU. We appreciate the need to be able to view such a large project at a 30,000-foot perspective in addition to ground-level analysis within affected BLM and USFS field offices. TU recommends the BLM update the 2008 Analysis Area data to account for the more recent development proposals in both renewable and nonrenewable energy development in addition to updated state wildlife agency habitat and fish and wildlife population data.

Specific Watershed Concerns

1. Fisheries.

The proposed GWW project accesses public and private lands containing unique native and wild fish populations. It should be noted that among federal, state, county, and nongovernmental organizations, a substantial scientific and financial effort has been invested to ensure fish habitat is enhanced and sensitive native populations are restored along many of these rivers, streams, and drainages along the transmission route. In addition, local watershed improvement projects in both Wyoming and Idaho have been designed to increase range and watershed health in several river drainages, improving the watershed basins and general health of the resource. We support the BLM's and the proponent's attempt to locate approximately 55 percent of the transmission route along designated corridors or within current corridors. It is imperative that the GWW project not compromise any of these

improvement efforts. As illustrated in Figures 6 and 7, native trout habitat exists in several areas in Wyoming and Idaho along the transmission route and it is our desire to maintain the integrity of these important ecological resources.

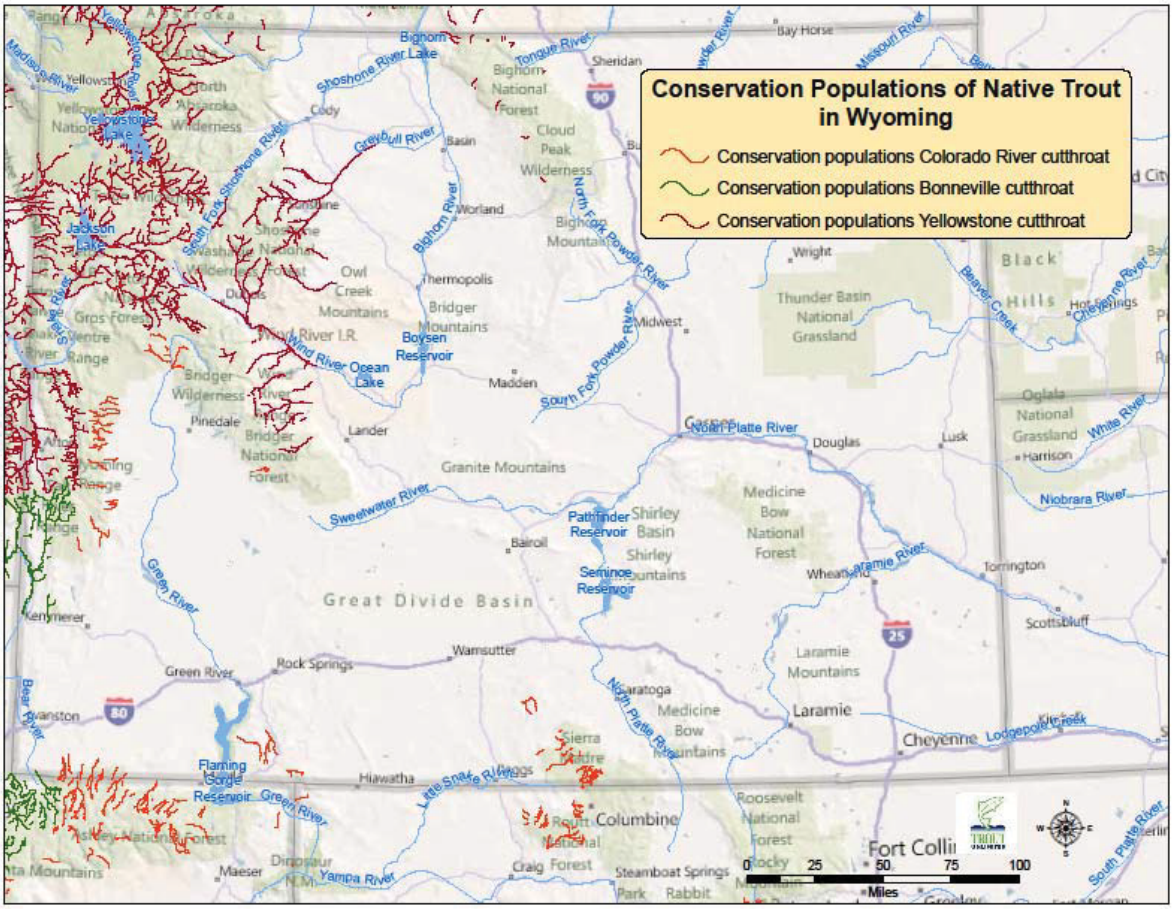

Figure 6. Native trout populations in Western Wyoming which may be potentially impacted by the Gateway West transmission project.

TU appreciates the project proponents' commitment to avoid wetland and riparian areas during construction activities. In general, TU would like to see the least amount of impact possible to rivers and streambanks. This means providing protective setbacks from road intrusions and surface disturbance from construction activities, staging activities, and associated industrial pollutants that occur with these project actions. For definition purposes, we recommend a minimum 500-foot for all perennial waterbodies and a one-quarter mile buffer on rivers and streams containing sensitive or threatened species. Further, we recommend this buffer measure be implemented on all public lands within the

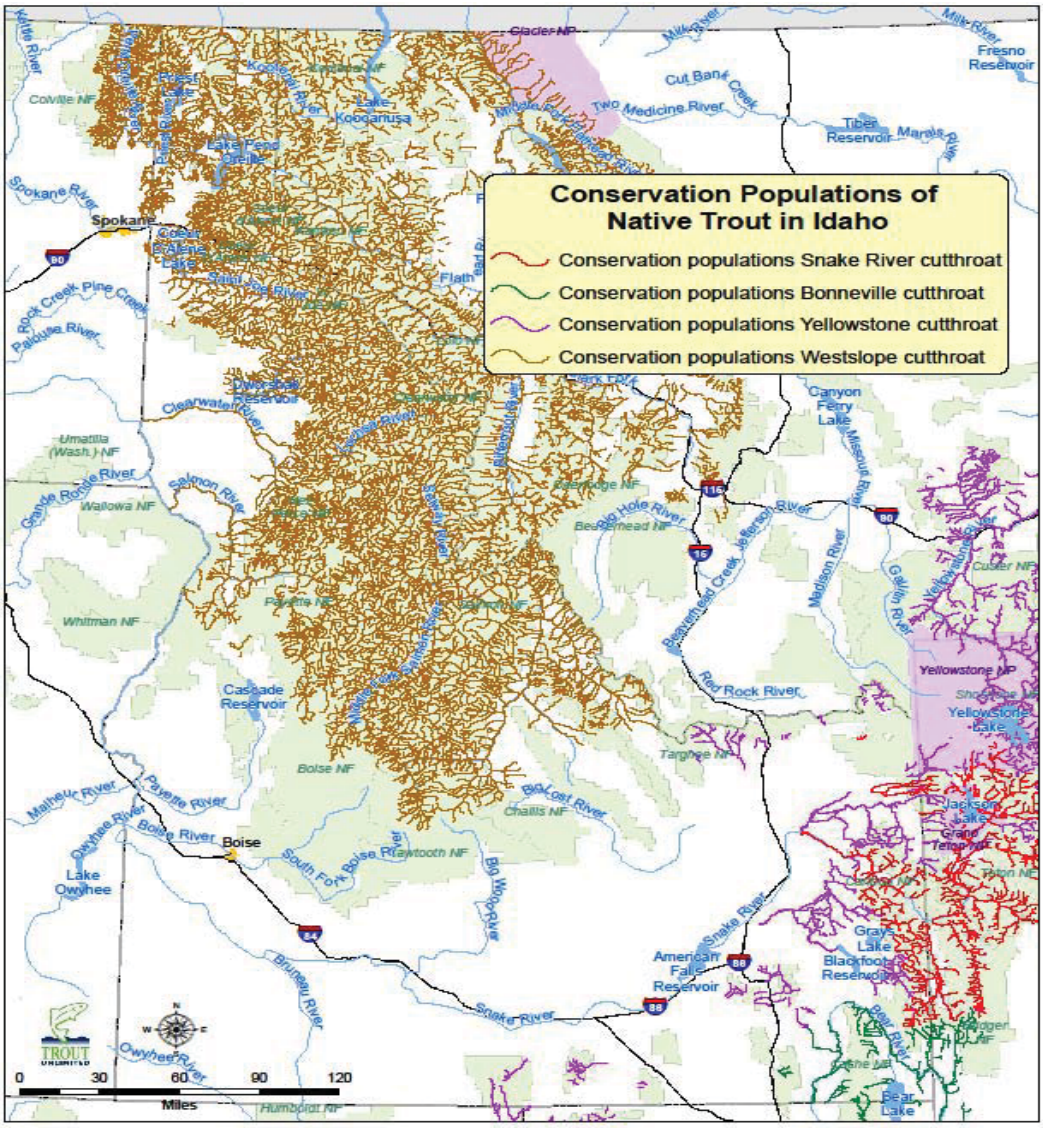

Figure 7. Native trout populations in Eastern Idaho which may be potentially impacted by the Gateway West transmission project.

project corridor. As noted in the DEIS, there are extremely diverse buffer protection measures within each BLM and FS field offices and districts.

The discussion on Wetlands and Riparian Areas in the DEIS fail to coordinate the cumulative impacts from the loss of wetlands and riparian areas to construction and development activities associated with this project. As rightfully mentioned, wetlands and riparian habitats occupy transitional areas between aquatic and upland habitats adjacent to waterways. Their filtering and buffering capabilities maintain flow attenuation and conveyance, act as erosion control barriers, and protect rivers and streams from heavy sedimentation loads, allowing specific streams and rivers to successfully maintain populations of native fish. The clearing of vegetation and soil disturbances has the potential to impact riparian-dependent species that support aquatic species within the ecological food chain. While the amount of

disturbance to riparian and wetland areas in the long-term may be minimal, downstream impacts must be considered and accounted for as they might impact sensitive species in this environment. The WGFD provides extensive discussion on the importance of amphibians and riparian/wetland habitat management as affected by renewable energy development in their "Wildlife Protection Recommendations for Wind Energy Development in Wyoming" (September 2010). The DEIS does not acknowledge this document and TU recommends this be included in the Final EIS along with the implementation of the document's mitigation measures.

Ten major river crossings and numerous smaller streams and creek crossings occur within this transmission project corridor. Access by way of continual stream crossings from heavy trucks on a regular basis will have impacts on the streams and riparian areas, thus potential impacts to native and wild trout can occur. Buried electric lines along stream crossings will have some level of indirect, direct, and time-constrained impacts. Construction of infrastructure facilities, routine maintenance , and annual operations involving regular stream crossings would potentially conflict with management goals for several species of native cutthroat trout and wild trout fisheries in Wyoming and Idaho.

Wild Trout Fisheries

Wild trout fisheries refer to non-native trout which have typically been brought into the state or stocked over time. In Wyoming, the North Platte River contains important world class wild trout fisheries with more than 130 contiguous miles of Blue Ribbon waters (in Wyoming) and Gold Medal waters (in Colorado). Its headwaters begin in northern Colorado through Northgate Canyon and coarse north through the Saratoga Valley in southern Wyoming, heading north and east toward Nebraska. The WGFD manages the North Platte River as a wild trout fishery.

The transmission corridor crosses the North Platte River in two places (near Glenrock and near Ft. Steele along I-80). Threats to the North Platte include increased development and water quantity availability and increased energy development, including wind, near I-80. These impacts threaten the security of the fishery as water quality is degraded by water withdrawals, pollutants, and road building (Trout Unlimited. " North Platte Wild Trout": CSI. 2011. www.tu.org).

Native Trout Fisheries

Several species of native trout are known to occur in Wyoming and Idaho and have been identified as occurring within the transmission corridor project, including Colorado River cutthroat (*Oncorhynchus clarkii pleuriticus*), Bonneville cutthroat (*Oncorhynchus clarkii Utah*), Snake River cutthroat (*Oncorhynchus clarkii spp)*, Yellowstone cutthroat (*Oncorhynchus clarkii bouvieri*), and Westslope cutthroat (*Oncorhynchus clarkii lewisi).* In addition, populations of bull trout (*Salvelinus confluentus*) are known to occur in the Snake River and Columbia River basins in Idaho and Oregon. The DEIS does not mention reference to these management guidelines for each species but TU recommends such documentation and management guideline implementation be included in the Final EIS.

For instance, the BLM is a signatory to the Colorado River Cutthroat Trout Conservation Agreement and Strategy, established in 2005. The U.S. Forest Service in Regions 2 and 4 has designated the CRCT as a sensitive species and the BLM has the CRCT on the Sensitive Species List, while the Wyoming Game and Fish Department (WGFD) has identified the CRCT as a Species of Special Concern. The designation to the Sensitive Species list means they have the potential to become endangered or candidate species in each state particularly when CRCT often are in typically small or fragmented populations, and inhabiting

specialized refugia or other unique habitats. This fish is also considered a species of special concern by the American Fisheries Society (J.E. Williams, et al. 1989. Fishes of North America endangered, threatened, or of special concern: 1989. Fisheries 14(6):2-20).

Because the transmission corridor's proposed route and alternatives are located in historic CRCT habitat, the BLM needs to include this information in the Final EIS. The CRCT Strategy requires protecting both existing *and potential* habitat, and requires the BLM's Resource Management Plans (RMPs) and land use decisions to do just that. The CRCT Strategy states:

> *Land management agencies agree to protect existing and potential cutthroat waters from adverse effects of other land uses and to consult with wildlife agency biologists on forest plans, permit processes, and other proposed activities to avoid or minimize potential negative impacts. Signatory agencies will ensure that their planning documents are consistent with this Strategy*. (CRCT Conservation Strategy, page 20) (Emphasis added).

In the Range-Wide Status of Colorado River Cutthroat Trout (2005; updated 2010) the CRCT Conservation Team, of which the BLM is a member, analyzed and identified habitat that they deemed to be suitable for re-establishing CRCT. The Range Wide Status is a critical component of range-wide coordination for CRCT Conservation Agreement and Strategy and it provides the best available scientific information regarding streams suitable for CRCT reintroductions.

Bonneville cutthroat (BCT) are native to the Bear River drainage in Wyoming and Idaho (in addition to Utah and Nevada) and occupy less than one-third (or 2,380 miles) of their original habitat. Since 1993 an inter-agency management team developed management plans focusing on population and habitat monitoring and in 2005 the Range-wide Conservation Agreement was established in partnership with Utah (lead agency), Wyoming, Idaho, Nevada, Goshute Tribe, several federal agencies (including the BLM), and nonprofit groups. That same year, a BCT Conservation Team was established with numerous state and federal agencies represented. In 2008 a petition was filed with the US Fish and Wildlife Service (USFWS) to list the BCT as a threatened subspecies but it was determined such a listing was unwarranted based on the conservation work the states have been implementing. The Conservation Agreement is established to maintain the known 53 conservation populations throughout this subspecies habitat. In Wyoming, BCT currently occupy 296 miles in the Bear River drainage and in Idaho, they occupy 540 miles, also in the Bear River drainage. Habitat fragmentation and degradation are the greatest threats to the persistence of BCT.

Populations of Yellowstone cutthroat (YCT) occur within the Snake River and Colorado River watersheds of Idaho and Wyoming, occupying 54% of its historic watersheds. Most YCT habitat lies on lands administered by the US Forest Service and the National Park Service. In 2006, the USFWS released a determination that found YCT listing was not warranted based on the current stability of the trout. Though threatened by invasive non-native fish species in some areas, stable self-sustaining populations are scattered throughout its range, largely due to conservation measures implemented by state, federal, tribal, nonprofit organizations, and the public at large. In 2007, a Range-Wide Status Assessment of YCT was completed based on recommendations from the Yellowstone Cutthroat Trout Interagency Coordination Group, established in 2006 with participating state, federal, local and tribal governments to oversee conservation management goals and objectives . In order to keep YCT populations stable,

effective mitigation and management measures must be implemented to avoid impacting important habitat.

Snake River fine-spotted cutthroat (SRFS) is a subspecies of cutthroat trout, is considered an evolutionary derivative of the larger-spotted YCT, and is treated separately by most fishery management agencies. While occupying similar range to the YCT, it also inhabits lower portions of the Snake River system below Palisades Reservoir in Idaho and in portions of the Green River drainages in Wyoming. Compared to other subspecies of cutthroat trout, SRFS remains the most stable from a conservation status. However, as more research and information gaps are revealed about the understanding of SRFS, the BLM must continue to implement strong conservation measures to protect stream habitat for this subspecies.

Westslope cutthroat (WCT) populations include habitat areas in Idaho and has been identified in the DEIS as a cutthroat species occurring within the project boundaries. However, the BLM may want to reassess this statement as most of the science and agency data shows its habitat range as further north (see Figure 7) from the proposed transmission corridor.

Bull trout (BT) were listed under the Endangered Species Act (ESA) in 1999 as threatened throughout their range in Washington, Oregon, Idaho, Montana and Nevada (USFWS, 2010. "Final Critical Habitat Designation for Bull Trout in Idaho, Oregon, Washington, Montana, and Nevada. USFWS). BT can be found in the Columbia and Snake River basins, requiring some of the coldest water temperatures and cleanest water substrates of all trout. The USFWS recently re-designated new critical habitat areas for bull trout management implications and in Idaho, 8,772 stream miles were identified as critical bull trout habitat, including the Lower Snake River Basins and Southwest Idaho River Basins. Critical habitat designation has been designated because of the essential qualities required for the conservation of BT.

The DEIS does not reference bull trout due to the date of the fish and wildlife analyses which occurred for the DEIS. However, since new habitat designations have occurred in Idaho, we recommend the BLM review any potential impacts to bull trout habitat and implement appropriate mitigation measures. The DEIS fails to address all the cutthroat trout identified in our comments, other than referencing Bonneville cutthroat occurring in Bear Lake (Ch. 3.10-18) and the Yellowstone cutthroat in the Table discussion on Affected Environment and Environmental Consequences (Ch 3.10-11; Table 3.10.2). We suggest, based on our information, that the Final EIS include more analysis of the cutthroat trout and other wild trout that may be impacted by this project.

Three Species

We also suggest including a discussion of the three native nongame fish species, known as the Three Species (roundtail chub, flannelmouth sucker, and bluehead sucker). All three species are classified as nongame fish by WGFD in Wyoming (2005) and are managed under by a technical coordination team which developed the" Conservation Agreement and Conservation Strategy for Roundtail Chub, Flannelmouth Sucker, and Bluehead Sucker "(2004). In 2006, WGFD developed a Management Plan specifically for the conservation of these species. Once abundant in the Colorado River Basin, all three species have declined dramatically in their native habitats and are considered sensitive and threatened species . Current occupation includes Blacks Fork drainage, the Bear River drainage, the Snake River drainage, the Smiths Fork drainage, and the Little Snake River drainage.

The BLM is engaged as one of many partners in a 10-year effort to develop strategies for focusing on restoring habitats and water quality for these three fish species as well as CRCT in the Upper Colorado River Basin ("Upper Colorado River Basin Native Fishes Business Plan: A 10-year effort to develop self-sustaining native fish communities in the Upper Colorado River Basin". 2009. Prepared for the National Fish and Wildlife Foundation. CRCT Team, WGFD, BLM, USFWS, Utah WR, CDWR, The Nature Conservancy, TU, USFS, Packard Foundation).

TU considers any water impacted actions as they affect fish, particularly in areas with severely water erodible soils, wind erodible soils, and poor topsoil ratings, a source of concern due to the sensitive nature of much of the high desert semi-arid country this project accesses. Often, water is at a premium in this landscape and any impacts to water quality and quantity adds stressors to fish and wildlife.

2. Road and Culverts. Runoff potential remains a concern as the increase in roads, transmission access points, width of transmission corridor, development plans for permanent facilities, and the increased road traffic projected to occur. Roads are leading causes of sedimentation and erosion problems in watersheds and TU remains concerned that if not adequately and carefully designed and monitored, the increased road development and amendments to current road infrastructure will impact sensitive streams and river systems. ROW access width is proposed at 300 feet and has a potential for up to 350 feet. Transmission line development and buried transmission lines required for this project will also likely increase sedimentation and erosion deposition.

The DEIS (Chapter 3) discusses potential environmental impacts but briefly as they affect streams and river systems. The development of permanent 8-foot wide roads to each transmission tower and the construction of pads to hold transmission towers within wetlands and riparian areas must account for downstream impacts both short-term and long-term. If at all possible, such development must be avoided in these areas.

Impacts from sedimentation and water withdrawal used during the construction of this project have the potential to negatively impact the various river drainages within this project. Of significant concern to TU is the potential for the creation of fish passage barriers, impeding fish movements. These barriers are likely to occur if roads or other surface disturbing activities occur without utilizing construction techniques designed to allow fish passage.

It is essential for fish to have unimpeded access to current and historical habitat. This access allows fish to reproduce in a sustainable manner and to be resilient to natural events that might temporarily impair habitat in a given area. Events such as flooding, fire and climate change have the potential to eliminate small isolated populations of fish. However, if a large network of interconnected habitat is available fish can move to more suitable habitat when stressed or other populations can repopulate an area where fish have died off due to an isolated event.

For this reason if a road crossing or other surface disturbing activity occurs in an area that serves as habitat for fish during any time of the year the crossing, or surface disturbing activity, needs to be constructed in a manner that does not create a barrier to fish passage. Specifically road crossings of streams that fish occupy for any part of the year should be constructed with a bottomless culvert with a width greater than the bankfull width of the stream. Fast moving water through narrow culverts can be

detrimental to fish movement, including preventing opportunities for resting places. Culverts that are too wide disperse water to a thin layer becoming too shallow for fish to pass through.

Further analysis for all river and stream crossings should include assessments that take into account the specific fish species, their life-span activities (the length of travel necessary along a river system to acquire food and mates), the river system itself, potential for non-native or invasive species to access native habitat, etc. The effects of poorly functioning culverts extend beyond the water's edge, impacting water dependent species such as mammals, birds, amphibians, and insects as well. Finally, repairing poorly installed culverts is expensive. Developing appropriate culvert plans with appropriate size, placement, and maintenance prior to construction ensures watershed protection and successful fish passage.

In the DEIS discussion for Roads and Culverts (Appendix B), plans are proposed for developing roads in areas with greater than 60% slope. TU feels there is a significant problem in developing roads on slopes greater than 40%; most land use plans have NSO (No Surface Occupancy) language that prohibits such development. Erosion, slides, hazards associated with such roads, and difficult maintenance all contribute to unstable road issues.

Finally, we recommend baseline water quality monitoring in areas where stream and river crossings require unusual construction activities, have permanent structures within the riparian or wetland boundaries, and road access is year round. Baseline water sampling prior to the beginning of construction activities, followed by routine annual water sampling should be implemented as part of federal management plans. This is particularly important in areas where steep slopes are accessed, in forested areas where important vegetation cover along streambanks has been removed, and in unstable or fragile soil areas. In addition, remediation plans should be developed to compliment the water quality monitoring should results from the monitoring show impacts to water quality and quantity.

3. Buffers and Seasonal Stipulations. The Analysis Area reviewed in the DEIS for fisheries resources includes a one-mile wide corridor review, 0.5 mile from either side of centerline. TU appreciates such a thorough stream segment review as we feel this will provide adequate guidelines for implementing protection buffers from potential sedimentation, surface disturbance discharges, and associated infrastructure impacts caused by road development. As we have earlier mentioned, we strongly advocate for a minimum of a 500-foot buffer from any perennial stream with larger buffers on streams or rivers containing sensitive or threatened fish species. The Analysis Review, however, considers a 500-foot buffer from the centerline, which would mean a 250-foot buffer from either side of centerline. This potentially decreases any protective measures especially around river and stream corridors. In addition, an ephemeral streams and drainages designated as important seasonal fisheries habitat must have 500-foot buffers established to protect eggs, fry, or young fish as they begin their life cycle.

Further, in Appendix I, within the Wyoming BLM field offices, three different sets of stipulations have been identified for this project, ranging from limited to 500-foot- to 1,000-foot buffers on fish-bearing streams. In Idaho, there is a gapping lack of stipulations discussed for stream access and spawning timing limitations. Overall, the lack of consistent and uniform stipulations and buffer setbacks potentially increases the risk of contamination to streams based on the proponent's ability to keep track of the variety and numerous types of local mitigation measures. Standardizing a set of streambank

stipulations and setbacks for a linear project such as this provides the proponent with upfront expectations and certainties while creating a stronger plan of development for resource protections.

4. Other Environmental Analysis Concerns

Appendix E lacks maps illustrating Key Habitat and Restoration Areas for Wyoming. The map for Idaho in Appendix E is specific to sage grouse habitat and TU suggests a similar map be prepared for Wyoming since considerable sage grouse habitat exists within this state.

We suggest Appendix I be updated to reflect the numerous revised Land Use Plans, state agency mitigation plans for various energy actions, and include all BLM field offices and their stipulation measurements. Specifically, the following documents were not identified in the DEIS:

1. *Wyoming Statewide Wildlife Action Plan.* The WGFD has updated their Statewide Wildlife Action Plan (SWAP) to reflect new species designations, management objectives, and action plans (April 2011). This should be included in the Final EIS. No mention of any type of plan was identified for Idaho, though one was identified for Nevada (Ch 3.10-7).

2. *Wyoming Game and Fish Oil and Gas Mitigation Recommendations*. The WGFD has updated the "Oil and Gas Recommendations" to reflect changes and data updates (May 2010). Included are buffer and timing restriction discussions and recommendations which the BLM should review.

3. *Wyoming Game and Fish Wind Recommendations*. The WGFD has developed a document which provides management recommendations for wind and renewable energy development (2010). This document should be included in the Final EIS.

4. *Wyoming BLM Statewide Reclamation Policy*. The Wyoming BLM State Office has developed a statewide set of reclamation policy standards which strives to update and coordinate the numerous and often inconsistent field office reclamation plans for energy development. We recommend the Final EIS include this in their mitigation requirements as it is designed to create a more uniform policy standard that implements state-of-the-art reclamation practices.

5. *Numerous Outdated BLM Resource Management Plans.* The DEIS, in Appendix I, references numerous outdated RMPs. TU understands the amendments will be made to all land use plans for both the USFS and the BLM; however, amending outdated environmental plans without revising management objectives and resource conditions may not provide the best management guidance. The BLM should carefully review each RMP and assess whether NEPA is adequately addressed under the old management plans as applied to this transmission project.

Summary

The DEIS has incorporated a thorough and fairly extensive environmental review for this large transmission project. It is setting the bar for other transmission projects currently under federal NEPA review and TU appreciates the extent to which this analysis has been conducted. TU has made several

recommendations for updates and further analysis. We remain committed to advocating for responsible energy development that progresses in a collaborative, innovative, and protective manner for our quality public land resources.

If you have any questions or would like to discuss these comments further, please feel free to contact us.

Sincerely,

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October 28, 2011
Sent via email to: Gateway_WestWYMail@blm.gov and U.S. Postal Mail

Walt George
Project Manager
Bureau of Land Management
Wyoming State Office
P.O. Box 20879
Cheyenne, WY 82003

RE: Comments to the Gateway West Transmission Line Project Draft Environmental Impact Statement; Wyoming, Idaho, and Nevada

Dear Mr. George,

Trout Unlimited appreciates the opportunity to comment on the Draft Environmental Impact Statement (DEIS) for the proposed Gateway West Transmission Line Project (GWW). The proposed project is to include the location of a 1,103 mile-long electric transmission line from the proposed Windstar Substation near the Dave Johnston Power Plant near Glenrock, Wyoming to the proposed Hemingway Substation near Melba, Idaho. The requested Right of Way (ROW) width is 300 feet but could range from 125 feet to 350 feet, depend on various circumstances. While approximately 610 miles of the proposed route is located within or adjacent to existing corridors, the remaining project will require the development of new corridor access.

The pace and scale of renewable energy development projects have exploded since 2009 when the DEIS analyses occurred. In Wyoming alone, 12 new wind project proposals and 3 transmission proposals are under various stages of NEPA analysis. In Idaho, many similar renewable projects are underway as interests surge. As these developments begin physically crossing the landscape, cumulative impacts begin to take their toll. Trout Unlimited's (TU) primary concerns are with stream and river sedimentation issues caused by an increase in road access development, surface damages to the environment adjacent to streams and rivers, and river and stream crossings particularly in sensitive coldwater fisheries habitat. We also believe that renewable energy development, though highly available on our public lands, is not appropriate everywhere on public lands. Our comments will address these concerns and offer recommendations that consider the protection of our important fish and wildlife resources while simultaneously supporting responsible renewable energy development.

TU understands the numerous resource and land use plan amendments which must be coordinated and undertaken in order to meet NEPA requirements and comply with 43 Code of Federal Regulations (CFR)

1610.2(c) for the Bureau of Land Management (BLM) and 36 CFR 219.8 with the US Forest Service. Further, we understand that due to the numerous changes and adaptations which have occurred with this proposed project since 2009, the BLM has not offered a preferred alternative but rather will do so in the Final EIS. Since the writing of the DEIS, considerable progress has been put forth on federal and state levels to develop more concise, expeditious, and consistent processes for siting and permitting transmission projects. TU recommends the BLM include all new publications, regulations, and recommendations regarding best management practices in the Final EIS as they relate to renewable energy development. Specifically, the Western Governors' Association (WGA) released their "roadmap" which highlights key information compiled from existing national, regional, and state studies regarding renewable energy development from concept to construction ("Renewable Energy Transmission Roadmap". Western Governors' Association. June 2010).

TU compliments the BLM on the thoroughness of the environmental review, including the implementation of a multitude of environmental analyses applications which assists the reader in understanding the review process and potential consequences of this project.

TU has the following general concerns about the proposed project:

1. Buffer zones for riparian, wetlands, and water bodies lack consistency and widely differ among individual BLM offices in both Wyoming and Idaho. Strong buffer or setback preferences should be incorporated in order to minimize impacts to surface and water bodies where development occurs.

2. Inadequate mitigation and stipulation measures are not consistent among the numerous BLM offices in Wyoming and Idaho. Establishing universal mitigation and stipulation measures at the front of this proposal which provide for protection during the development, construction, and operational phases and contribute toward a more successful and acceptable portfolio for renewable energy development projects.

3. The DEIS's suggested seasonal stipulations should be, at a minimum , universal for all wildlife and fish affected by this project on public lands and especially specific for sensitive species, state species of concern, and threatened/endangered/candidate fish and wildlife species identified as potentially being impacted by the proposed project.

4. Reclamation measures identified in the DEIS should be updated to reflect new standards and technology, including reference to the Wyoming BLM Statewide Reclamation Policy of 2010. Without adequate successful reclamation practices, the proposed project could adversely impact sensitive species and species of concern, in addition to big game habitat and migration corridors.

5. The proposed project crosses through significant acreage of critical winter range for big game species in both states. As more and more wildlife habitat is removed from use through the increased multitude of both renewable and nonrenewable energy development across our public lands, restoration opportunities must be thoroughly and productively developed for functional use.

6. A portion of one of the Alternatives in Wyoming crosses through a portion of the Cokeville Meadows National Wildlife Refuge, that portion which is considered for acquisition between the BLM and the US Fish and Wildlife Service. In addition to the significant bird and wildlife attributes of the

area, it is also an important coldwater fisheries habitat that contains several TU sponsored restoration projects.

Background

TU is a private, non-profit coldwater conservation organization that has more than 144,000 members nationwide dedicated to conserving, protecting and restoring North America's trout and salmon fisheries and their watersheds. Since 1959, TU has dedicated staff and volunteers toward the protection of sensitive ecological systems necessary to support robust native and wild trout and salmon populations in their respective range. TU recognizes that the value of public lands is unparalleled in providing habitat to coldwater fisheries and wildlife. TU's conservation program includes a sportsmen's conservation project that recognizes the importance of protecting public lands for the protection and restoration of wildlife and fisheries, and hunting and fishing opportunities.

In Wyoming, TU has over 1,400 members and 12 state chapters whose members actively enjoy and value the resources of the many streams and rivers contained within the project area. In Idaho, TU is equally active with approximately 2,000 members and 7 state chapters. Members of our chapters regularly participate in on-the-ground restoration and enhancement projects within the Rawlins BLM resource area in an effort to help restore, protect and maintain valuable fisheries habitat.

General Comments

TU is supportive of responsible energy development including renewable energy such as wind, solar, or geothermal, and the necessary transmission infrastructure required to support renewable energy development projects. Transmission line projects, however, can be significant landscape intrusions, causing habitat fragmentation, erosion and sedimentation issues from loss of vegetation, dust, and new roads, impacts to waterbodies, permanent habitat loss, and the opportunity for invasive plants to dominate a landscape.

Based on the numerous alternatives and the levels of impacts which are destined to occur, TU is in support of Alternatives as defined by Sections and discussed below with additional stipulation and mitigation recommendations. We have attempted to provide some overview analysis of the project as it impacts important habitat values and provided rationale for our identified preferred alternatives recommendations.

Landscape Assessment

In light of the increased demand for renewable energy development across our nation's public lands, TU has completed an internal assessment of renewable energy development and associated potential habitat impacts. The landscape-scale review of the proposed Gateway West corridor alignments is based on results from the TU white paper *Broadscale Assessment of Renewable Energy Potential and the Human Footprint (*A. Haak, 2010) report (referred to in this document as the *Renewable Report*). The Renewable Report includes an assessment of development suitability across the western United States. The suitability assessment is based primarily on a human footprint analysis which uses the intensity and extent of anthropogenic impacts on the landscape as a surrogate for loss of biodiversity and altered ecological processes. Lands with a greater human footprint are assumed to be more degraded and therefore potentially more suitable for development than less altered landscapes.

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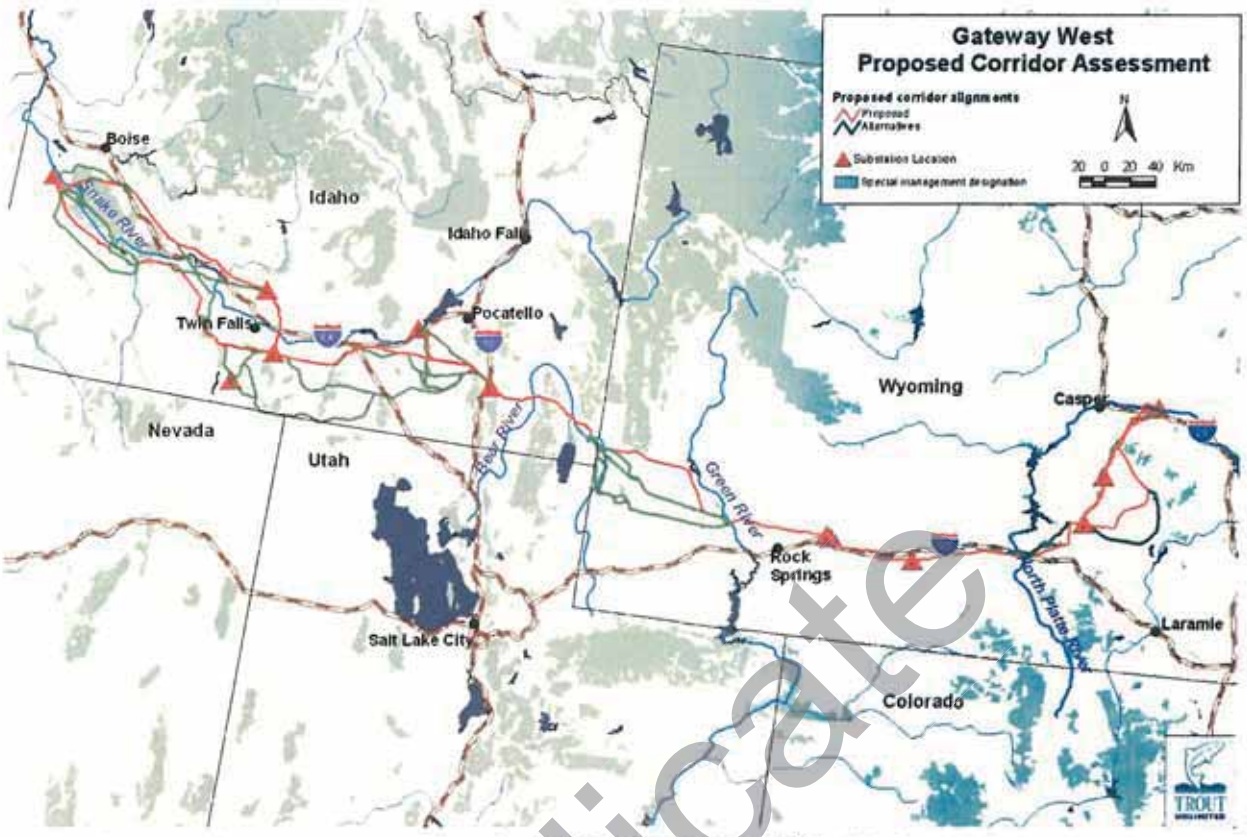

Figure 1. Gateway West proposed corridor alignment and feasible alternatives.

Results of the Renewable Report are used to evaluate the corridor alternatives by analyzing landscape-scale patterns and habitat conditions across the proposed project area. A preferred route is selected based on those alignments that correspond to the most altered landscapes or make use of existing transmission and highway right-of-ways, thus minimizing additional fragmentation of the landscape. Figure 1 depicts the full extent of alternative alignments and associated substations. Special management areas within the region are shown in green on the map.

Figure 2 below depicts the proposed corridor alternatives under consideration in conjunction with results of the development suitability assessment from the Renewable Report. By integrating results of the human footprint analysis with native trout distributions and core sage-grouse habitat, the suitability assessment provides a way to quickly identify some of the proposed corridors that are the most problematic. The first four sections (01W, 01E, 02, 03, and 04) are all associated with landscapes identified in our assessment as not suitable for development often due to the presence of special management areas (e.g. roadless area, wilderness study area, state or federal park), sage grouse core areas or significant coldwater habitat.

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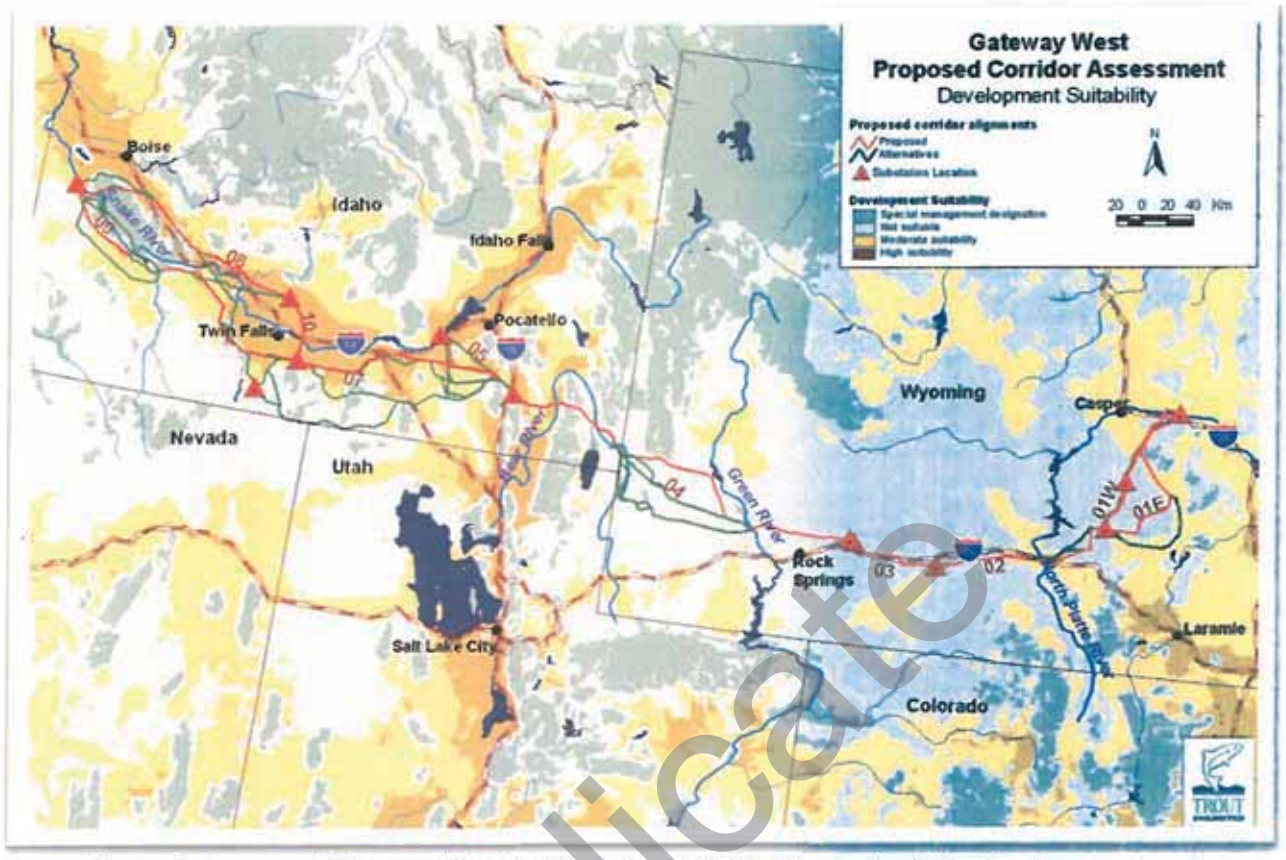

Figure 2. Proposed Gateway West corridor alternatives and results of the development suitability assessment.

Results of the human footprint analysis can provide some additional clarification of landscape conditions. Areas identified as core sage-grouse habitat are based on a broadscale assessment and therefore encompass much of southwestern Wyoming. This designation is the primary driver behind the classification of this region as unsuitable for development. However, by reviewing results of just the human footprint analysis, some inferences can be made about habitat quality within the broader core area. Figures 3 and 4 show the results of the human footprint assessment for these sections of the transmission corridor project.

Using the results of the human footprint assessment as an indicator for habitat integrity it is evident that much of the transmission line in sections 02 and 03 is associated with low quality habitat as a result of generally following the Interstate 80 highway corridor. Site specific assessments associated with the North Platte River and its tributaries will be required to determine the preferred location of roads and towers in order to minimize sediment delivery into this important coldwater habitat. As Figure 3 shows, section 01E is problematic at the landscape scale as both TU's preferred alternative and alternative 01E-B (not shown but located south of 01E as the green line) cross a landscape that is at the lower end of the spectrum for human disturbance. Alternatives 01E-C and 01W parallel each other and are associated with more degraded landscape as well as an existing transmission line thus minimizing additional habitat fragmentation. Therefore, that alternative is shown in purple (01W) on the map as TU's preferred alternative for this section of the transmission system.

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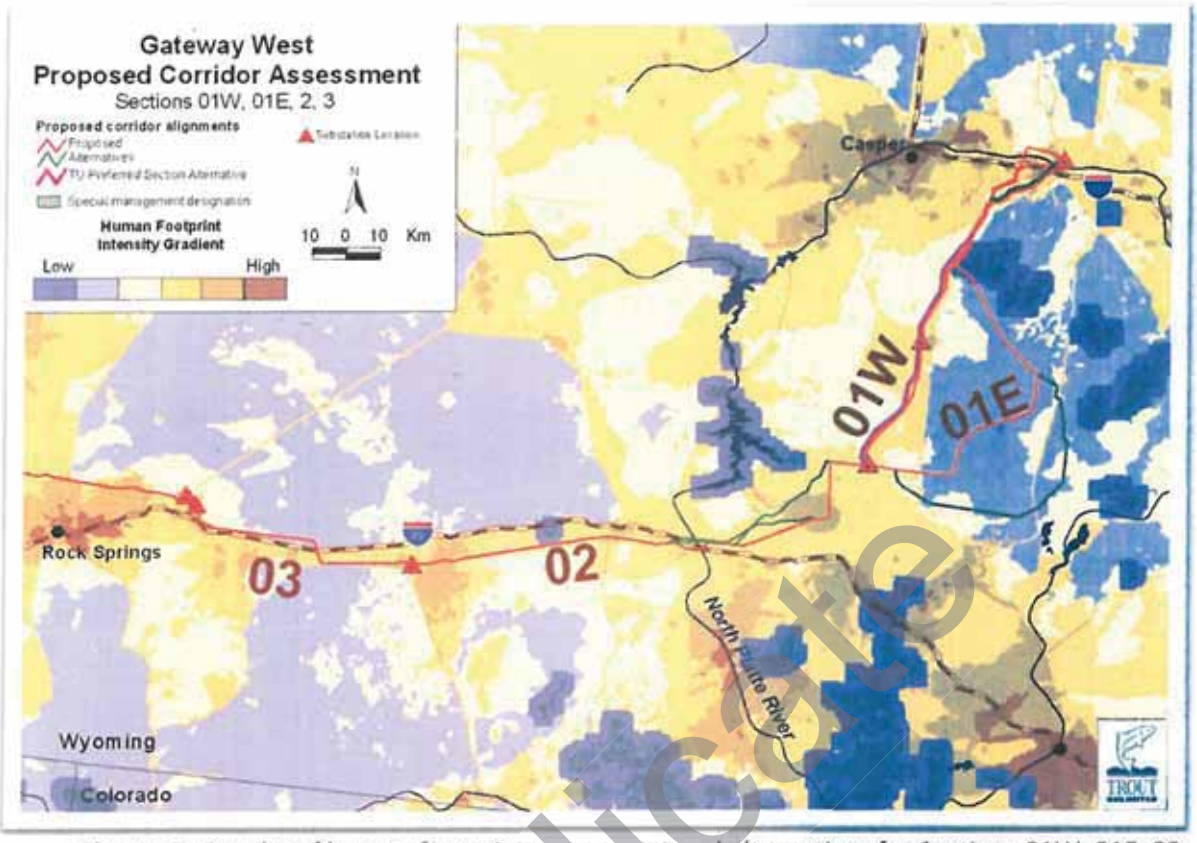

Figure 3. Results of human footprint assessment and alternatives for Sections 01W, 01E, 02, and 03.

Figure 4 shows the results of the human footprint analysis in conjunction with section 04 of the transmission system. The proposed alternative bisects an area that likely provides moderate to high habitat quality in an area designated as a sage-grouse core area. Although alternative 4B-C, TU's preferred alternative, also crosses the sage-grouse core area, it is associated with lower quality habitat and existing corridors so there will be less additional habitat fragmentation. These southern most alternative sections follow existing corridors, highways and railways. From the juncture of alternative 4B-C, we would then support the alternative section that becomes section 4E which follows Wyoming Highway 30.

We would recommend against alternative 4B-D as it follows the most western Wyoming border route and intersecting portions of the Cokeville Meadows National Wildlife Refuge. The Refuge supports one of the highest densities of nesting waterfowl habitat in Wyoming, has potential for the reintroduction of trumpeter swans, and provides significant and important habitat for greater sage grouse, mule deer, elk and pronghorn. In addition, TU has several Bonneville cutthroat trout habitat restoration projects established near the Refuge boundaries and numerous drainages within the Refuge.

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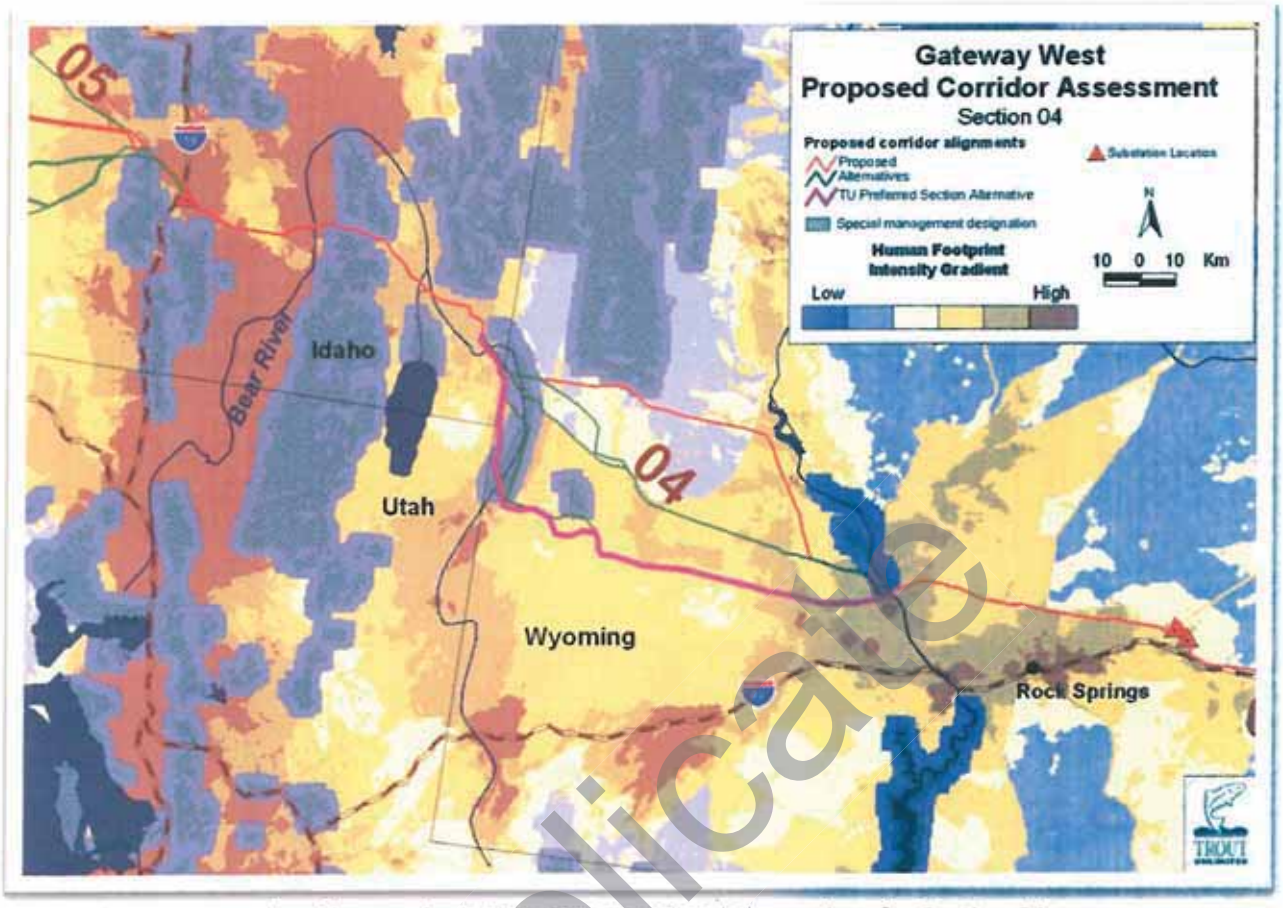

Figure 4. Results of human footprint assessment and alternatives for Section 04.

Figure 5 shows the alternative alignments for sections 07, 08, 09, and 10. In general, TU's preferred alternative is associated with degraded and converted lands so additional habitat fragmentation is less of a concern. Stream crossings or any construction within or adjacent to the riparian area will require site specific analyses to minimize impacts to aquatic resources. Section 09 crosses a number of special management areas including the Snake River Birds of Prey Area and the Salmon Falls Creek Wild and Scenic River. In order to minimize impacts to these important resources we recommend the use of existing transmission corridors and rights-of-way whenever possible. We also prefer stronger buffer setbacks to minimize the potential for soil erosion and damaging sedimentation to important native trout habitat. For this reason, we prefer alternative 9B for section 09 since it parallels an existing transmission line and avoids crossing Salmon Falls Creek in either the eligible or designated wild and scenic river sections.

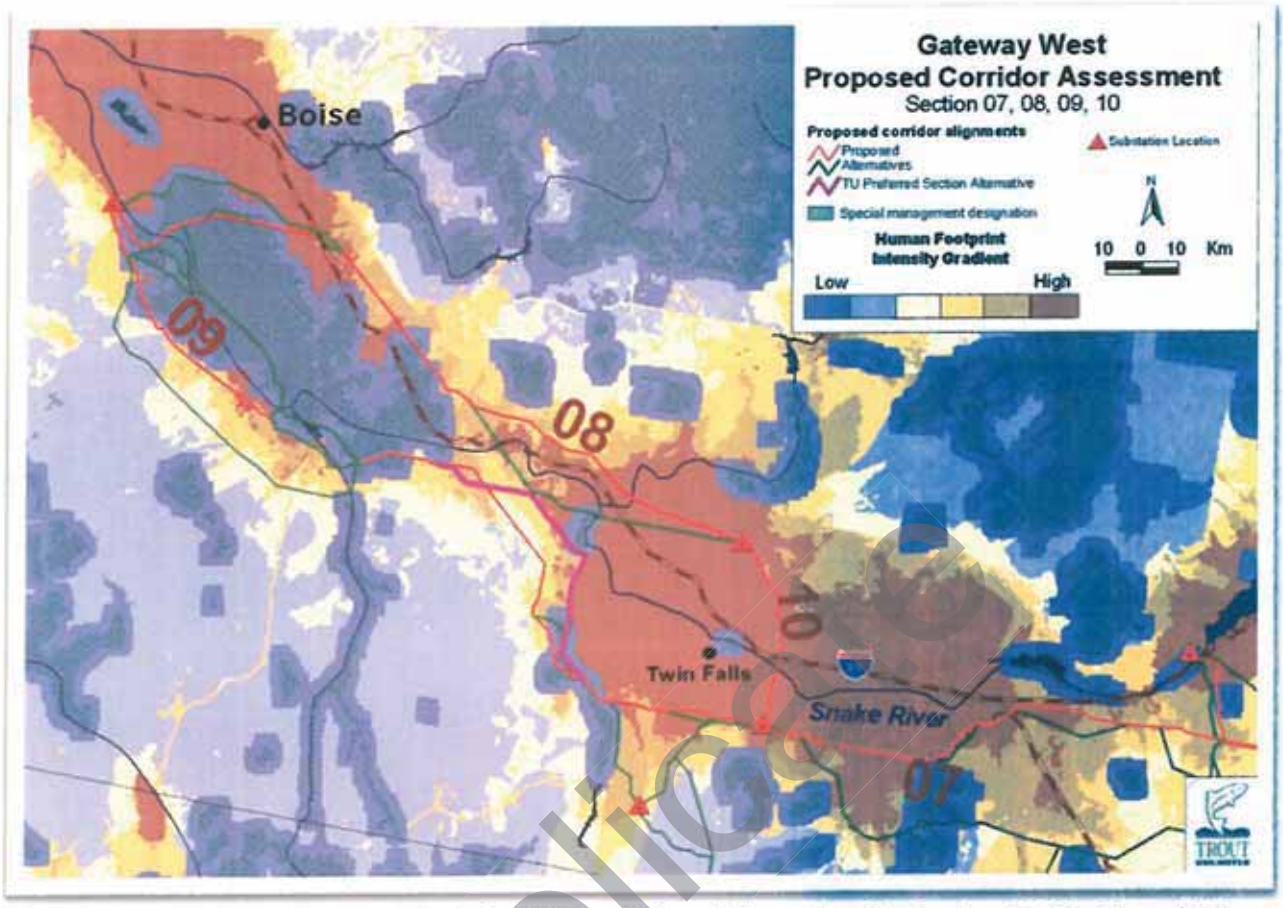

Figure 5. Results of human footprint assessment and alternatives for Section 07, 08, 09, and 10.

The BLM's and the USFS's implementation of a broad Analysis Area generally corresponds to the assessment efforts provided by TU. We appreciate the need to be able to view such a large project at a 30,000-foot perspective in addition to ground-level analysis within affected BLM and USFS field offices. TU recommends the BLM update the 2008 Analysis Area data to account for the more recent development proposals in both renewable and nonrenewable energy development in addition to updated state wildlife agency habitat and fish and wildlife population data.

Specific Watershed Concerns

1. Fisheries.

The proposed GWW project accesses public and private lands containing unique native and wild fish populations. It should be noted that among federal, state, county, and nongovernmental organizations, a substantial scientific and financial effort has been invested to ensure fish habitat is enhanced and sensitive native populations are restored along many of these rivers, streams, and drainages along the transmission route. In addition, local watershed improvement projects in both Wyoming and Idaho have been designed to increase range and watershed health in several river drainages, improving the watershed basins and general health of the resource. We support the BLM's and the proponent's attempt to locate approximately 55 percent of the transmission route along designated corridors or within current corridors. It is imperative that the GWW project not compromise any of these

improvement efforts. As illustrated in Figures 6 and 7, native trout habitat exists in several areas in Wyoming and Idaho along the transmission route and it is our desire to maintain the integrity of these important ecological resources.

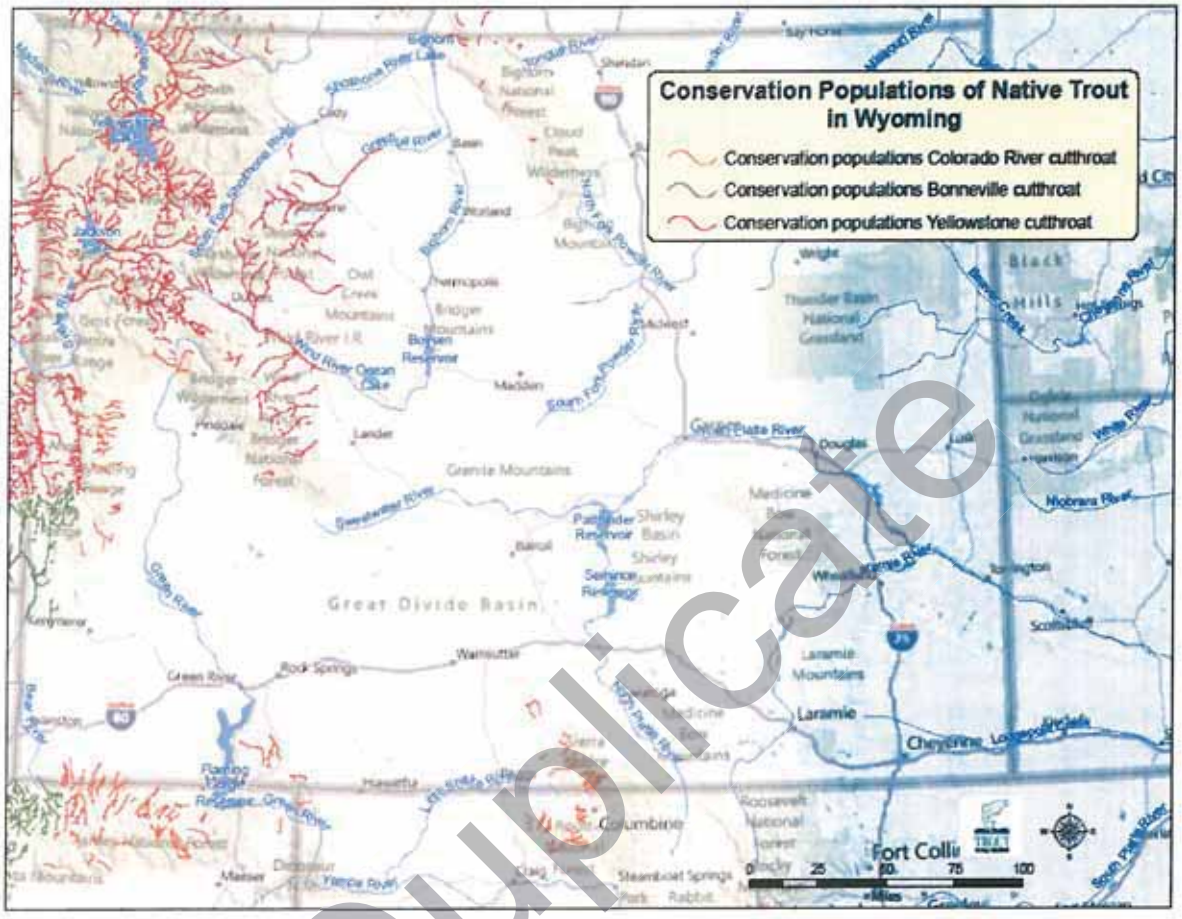

Figure 6. Native trout populations in Western Wyoming which may be potentially impacted by the Gateway West transmission project.

TU appreciates the project proponents' commitment to avoid wetland and riparian areas during construction activities. In general, TU would like to see the least amount of impact possible to rivers and streambanks. This means providing protective setbacks from road intrusions and surface disturbance from construction activities, staging activities, and associated industrial pollutants that occur with these project actions. For definition purposes, we recommend a minimum 500-foot for all perennial waterbodies and a one-quarter mile buffer on rivers and streams containing sensitive or threatened species. Further, we recommend this buffer measure be implemented on all public lands within the

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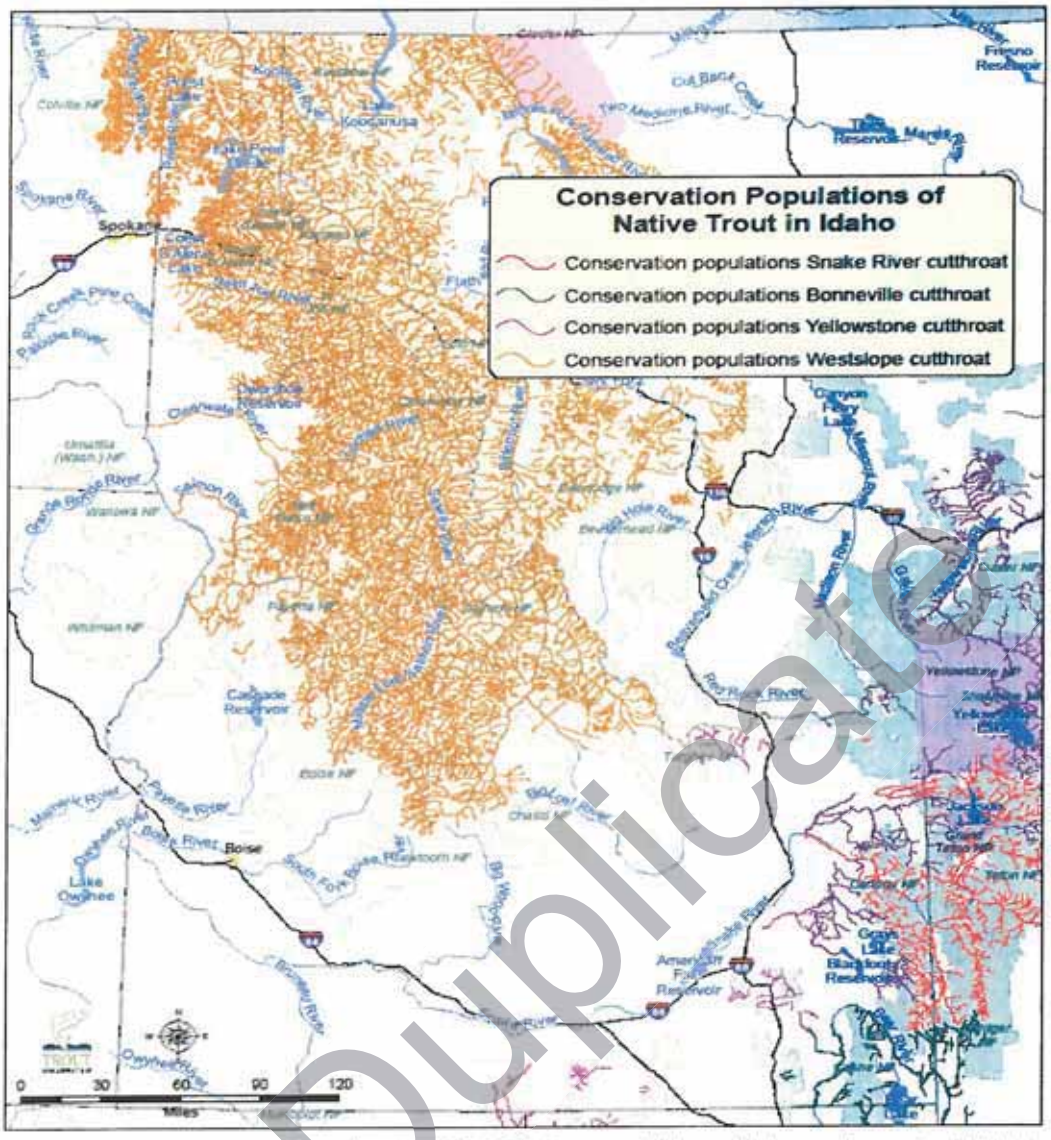

Figure 7. Native trout populations in Eastern Idaho which may be potentially impacted by the Gateway West transmission project.

project corridor. As noted in the DEIS, there are extremely diverse buffer protection measures within each BLM and FS field offices and districts.

The discussion on Wetlands and Riparian Areas in the DEIS fail to coordinate the cumulative impacts from the loss of wetlands and riparian areas to construction and development activities associated with this project. As rightfully mentioned, wetlands and riparian habitats occupy transitional areas between aquatic and upland habitats adjacent to waterways. Their filtering and buffering capabilities maintain flow attenuation and conveyance, act as erosion control barriers, and protect rivers and streams from heavy sedimentation loads, allowing specific streams and rivers to successfully maintain populations of native fish. The clearing of vegetation and soil disturbances has the potential to impact riparian-dependent species that support aquatic species within the ecological food chain. While the amount of

disturbance to riparian and wetland areas in the long-term may be minimal, downstream impacts must be considered and accounted for as they might impact sensitive species in this environment. The WGFD provides extensive discussion on the importance of amphibians and riparian/wetland habitat management as affected by renewable energy development in their "Wildlife Protection Recommendations for Wind Energy Development in Wyoming" (September 2010). The DEIS does not acknowledge this document and TU recommends this be included in the Final EIS along with the implementation of the document's mitigation measures.

Ten major river crossings and numerous smaller streams and creek crossings occur within this transmission project corridor. Access by way of continual stream crossings from heavy trucks on a regular basis will have impacts on the streams and riparian areas, thus potential impacts to native and wild trout can occur. Buried electric lines along stream crossings will have some level of indirect, direct, and time-constrained impacts. Construction of infrastructure facilities, routine maintenance , and annual operations involving regular stream crossings would potentially conflict with management goals for several species of native cutthroat trout and wild trout fisheries in Wyoming and Idaho.

Wild Trout Fisheries

Wild trout fisheries refer to non-native trout which have typically been brought into the state or stocked over time. In Wyoming, the North Platte River contains important world class wild trout fisheries with more than 130 contiguous miles of Blue Ribbon waters (in Wyoming) and Gold Medal waters (in Colorado). Its headwaters begin in northern Colorado through Northgate Canyon and coarse north through the Saratoga Valley in southern Wyoming, heading north and east toward Nebraska. The WGFD manages the North Platte River as a wild trout fishery.

The transmission corridor crosses the North Platte River in two places (near Glenrock and near Ft. Steele along I-80). Threats to the North Platte include increased development and water quantity availability and increased energy development, including wind, near I-80. These impacts threaten the security of the fishery as water quality is degraded by water withdrawals, pollutants, and road building (Trout Unlimited. " North Platte Wild Trout": CSI. 2011. www.tu.org).

Native Trout Fisheries

Several species of native trout are known to occur in Wyoming and Idaho and have been identified as occurring within the transmission corridor project, including Colorado River cutthroat (*Oncorhynchus clarkii pleuriticus*), Bonneville cutthroat (*Oncorhynchus clarkii Utah*), Snake River cutthroat (*Oncorhynchus clarkii spp)*, Yellowstone cutthroat (*Oncorhynchus clarkii bouvieri*), and Westslope cutthroat (*Oncorhynchus clarkii lewisi)*. In addition, populations of bull trout (*Salvelinus confluentus*) are known to occur in the Snake River and Columbia River basins in Idaho and Oregon. The DEIS does not mention reference to these management guidelines for each species but TU recommends such documentation and management guideline implementation be included in the Final EIS.

For instance, the BLM is a signatory to the Colorado River Cutthroat Trout Conservation Agreement and Strategy, established in 2005. The U.S. Forest Service in Regions 2 and 4 has designated the CRCT as a sensitive species and the BLM has the CRCT on the Sensitive Species List, while the Wyoming Game and Fish Department (WGFD) has identified the CRCT as a Species of Special Concern. The designation to the Sensitive Species list means they have the potential to become endangered or candidate species in each state particularly when CRCT often are in typically small or fragmented populations, and inhabiting

specialized refugia or other unique habitats. This fish is also considered a species of special concern by the American Fisheries Society (J.E. Williams, et al. 1989. Fishes of North America endangered, threatened, or of special concern: 1989. Fisheries 14(6):2-20).

Because the transmission corridor's proposed route and alternatives are located in historic CRCT habitat, the BLM needs to include this information in the Final EIS. The CRCT Strategy requires protecting both existing *and potential* habitat, and requires the BLM's Resource Management Plans (RMPs) and land use decisions to do just that. The CRCT Strategy states:

> *Land management agencies agree to protect existing and potential cutthroat waters from adverse effects of other land uses and to consult with wildlife agency biologists on forest plans, permit processes, and other proposed activities to avoid or minimize potential negative impacts. Signatory agencies will ensure that their planning documents are consistent with this Strategy*. (CRCT Conservation Strategy, page 20) (Emphasis added).

In the Range-Wide Status of Colorado River Cutthroat Trout (2005; updated 2010) the CRCT Conservation Team, of which the BLM is a member, analyzed and identified habitat that they deemed to be suitable for re-establishing CRCT. The Range Wide Status is a critical component of range-wide coordination for CRCT Conservation Agreement and Strategy and it provides the best available scientific information regarding streams suitable for CRCT reintroductions.

Bonneville cutthroat (BCT) are native to the Bear River drainage in Wyoming and Idaho (in addition to Utah and Nevada) and occupy less than one-third (or 2,380 miles) of their original habitat. Since 1993 an inter-agency management team developed management plans focusing on population and habitat monitoring and in 2005 the Range-wide Conservation Agreement was established in partnership with Utah (lead agency), Wyoming, Idaho, Nevada, Goshute Tribe, several federal agencies (including the BLM), and nonprofit groups. That same year, a BCT Conservation Team was established with numerous state and federal agencies represented. In 2008 a petition was filed with the US Fish and Wildlife Service (USFWS) to list the BCT as a threatened subspecies but it was determined such a listing was unwarranted based on the conservation work the states have been implementing. The Conservation Agreement is established to maintain the known 53 conservation populations throughout this subspecies habitat. In Wyoming, BCT currently occupy 296 miles in the Bear River drainage and in Idaho, they occupy 540 miles, also in the Bear River drainage. Habitat fragmentation and degradation are the greatest threats to the persistence of BCT.

Populations of Yellowstone cutthroat (YCT) occur within the Snake River and Colorado River watersheds of Idaho and Wyoming, occupying 54% of its historic watersheds. Most YCT habitat lies on lands administered by the US Forest Service and the National Park Service. In 2006, the USFWS released a determination that found YCT listing was not warranted based on the current stability of the trout. Though threatened by invasive non-native fish species in some areas, stable self-sustaining populations are scattered throughout its range, largely due to conservation measures implemented by state, federal, tribal, nonprofit organizations, and the public at large. In 2007, a Range-Wide Status Assessment of YCT was completed based on recommendations from the Yellowstone Cutthroat Trout Interagency Coordination Group, established in 2006 with participating state, federal, local and tribal governments to oversee conservation management goals and objectives . In order to keep YCT populations stable,

effective mitigation and management measures must be implemented to avoid impacting important habitat.

Snake River fine-spotted cutthroat (SRFS) is a subspecies of cutthroat trout, is considered an evolutionary derivative of the larger-spotted YCT, and is treated separately by most fishery management agencies. While occupying similar range to the YCT, it also inhabits lower portions of the Snake River system below Palisades Reservoir in Idaho and in portions of the Green River drainages in Wyoming. Compared to other subspecies of cutthroat trout, SRFS remains the most stable from a conservation status. However, as more research and information gaps are revealed about the understanding of SRFS, the BLM must continue to implement strong conservation measures to protect stream habitat for this subspecies.

Westslope cutthroat (WCT) populations include habitat areas in Idaho and has been identified in the DEIS as a cutthroat species occurring within the project boundaries. However, the BLM may want to reassess this statement as most of the science and agency data shows its habitat range as further north (see Figure 7) from the proposed transmission corridor.

Bull trout (BT) were listed under the Endangered Species Act (ESA) in 1999 as threatened throughout their range in Washington, Oregon, Idaho, Montana and Nevada (USFWS, 2010. "Final Critical Habitat Designation for Bull Trout in Idaho, Oregon, Washington, Montana, and Nevada. USFWS). BT can be found in the Columbia and Snake River basins, requiring some of the coldest water temperatures and cleanest water substrates of all trout. The USFWS recently re-designated new critical habitat areas for bull trout management implications and in Idaho, 8,772 stream miles were identified as critical bull trout habitat, including the Lower Snake River Basins and Southwest Idaho River Basins. Critical habitat designation has been designated because of the essential qualities required for the conservation of BT.

The DEIS does not reference bull trout due to the date of the fish and wildlife analyses which occurred for the DEIS. However, since new habitat designations have occurred in Idaho, we recommend the BLM review any potential impacts to bull trout habitat and implement appropriate mitigation measures. The DEIS fails to address all the cutthroat trout identified in our comments, other than referencing Bonneville cutthroat occurring in Bear Lake (Ch. 3.10-18) and the Yellowstone cutthroat in the Table discussion on Affected Environment and Environmental Consequences (Ch 3.10-11; Table 3.10.2). We suggest, based on our information, that the Final EIS include more analysis of the cutthroat trout and other wild trout that may be impacted by this project.

Three Species

We also suggest including a discussion of the three native nongame fish species, known as the Three Species (roundtail chub, flannelmouth sucker, and bluehead sucker). All three species are classified as nongame fish by WGFD in Wyoming (2005) and are managed under by a technical coordination team which developed the" Conservation Agreement and Conservation Strategy for Roundtail Chub, Flannelmouth Sucker, and Bluehead Sucker "(2004). In 2006, WGFD developed a Management Plan specifically for the conservation of these species. Once abundant in the Colorado River Basin, all three species have declined dramatically in their native habitats and are considered sensitive and threatened species . Current occupation includes Blacks Fork drainage, the Bear River drainage, the Snake River drainage, the Smiths Fork drainage, and the Little Snake River drainage.

The BLM is engaged as one of many partners in a 10-year effort to develop strategies for focusing on restoring habitats and water quality for these three fish species as well as CRCT in the Upper Colorado River Basin ("Upper Colorado River Basin Native Fishes Business Plan: A 10-year effort to develop self-sustaining native fish communities in the Upper Colorado River Basin". 2009. Prepared for the National Fish and Wildlife Foundation. CRCT Team, WGFD, BLM, USFWS, Utah WR, CDWR, The Nature Conservancy, TU, USFS, Packard Foundation).

TU considers any water impacted actions as they affect fish, particularly in areas with severely water erodible soils, wind erodible soils, and poor topsoil ratings, a source of concern due to the sensitive nature of much of the high desert semi-arid country this project accesses. Often, water is at a premium in this landscape and any impacts to water quality and quantity adds stressors to fish and wildlife.

2. Road and Culverts. Runoff potential remains a concern as the increase in roads, transmission access points, width of transmission corridor, development plans for permanent facilities, and the increased road traffic projected to occur. Roads are leading causes of sedimentation and erosion problems in watersheds and TU remains concerned that if not adequately and carefully designed and monitored, the increased road development and amendments to current road infrastructure will impact sensitive streams and river systems. ROW access width is proposed at 300 feet and has a potential for up to 350 feet. Transmission line development and buried transmission lines required for this project will also likely increase sedimentation and erosion deposition.

The DEIS (Chapter 3) discusses potential environmental impacts but briefly as they affect streams and river systems. The development of permanent 8-foot wide roads to each transmission tower and the construction of pads to hold transmission towers within wetlands and riparian areas must account for downstream impacts both short-term and long-term. If at all possible, such development must be avoided in these areas.

Impacts from sedimentation and water withdrawal used during the construction of this project have the potential to negatively impact the various river drainages within this project. Of significant concern to TU is the potential for the creation of fish passage barriers, impeding fish movements. These barriers are likely to occur if roads or other surface disturbing activities occur without utilizing construction techniques designed to allow fish passage.

It is essential for fish to have unimpeded access to current and historical habitat. This access allows fish to reproduce in a sustainable manner and to be resilient to natural events that might temporarily impair habitat in a given area. Events such as flooding, fire and climate change have the potential to eliminate small isolated populations of fish. However, if a large network of interconnected habitat is available fish can move to more suitable habitat when stressed or other populations can repopulate an area where fish have died off due to an isolated event.

For this reason if a road crossing or other surface disturbing activity occurs in an area that serves as habitat for fish during any time of the year the crossing, or surface disturbing activity, needs to be constructed in a manner that does not create a barrier to fish passage. Specifically road crossings of streams that fish occupy for any part of the year should be constructed with a bottomless culvert with a width greater than the bankfull width of the stream. Fast moving water through narrow culverts can be

detrimental to fish movement, including preventing opportunities for resting places. Culverts that are too wide disperse water to a thin layer becoming too shallow for fish to pass through.

Further analysis for all river and stream crossings should include assessments that take into account the specific fish species, their life-span activities (the length of travel necessary along a river system to acquire food and mates), the river system itself, potential for non-native or invasive species to access native habitat, etc. The effects of poorly functioning culverts extend beyond the water's edge, impacting water dependent species such as mammals, birds, amphibians, and insects as well. Finally, repairing poorly installed culverts is expensive. Developing appropriate culvert plans with appropriate size, placement, and maintenance prior to construction ensures watershed protection and successful fish passage.

In the DEIS discussion for Roads and Culverts (Appendix B), plans are proposed for developing roads in areas with greater than 60% slope. TU feels there is a significant problem in developing roads on slopes greater than 40%; most land use plans have NSO (No Surface Occupancy) language that prohibits such development. Erosion, slides, hazards associated with such roads, and difficult maintenance all contribute to unstable road issues.

Finally, we recommend baseline water quality monitoring in areas where stream and river crossings require unusual construction activities, have permanent structures within the riparian or wetland boundaries, and road access is year round. Baseline water sampling prior to the beginning of construction activities, followed by routine annual water sampling should be implemented as part of federal management plans. This is particularly important in areas where steep slopes are accessed, in forested areas where important vegetation cover along streambanks has been removed, and in unstable or fragile soil areas. In addition, remediation plans should be developed to compliment the water quality monitoring should results from the monitoring show impacts to water quality and quantity.

3. Buffers and Seasonal Stipulations. The Analysis Area reviewed in the DEIS for fisheries resources includes a one-mile wide corridor review, 0.5 mile from either side of centerline. TU appreciates such a thorough stream segment review as we feel this will provide adequate guidelines for implementing protection buffers from potential sedimentation, surface disturbance discharges, and associated infrastructure impacts caused by road development. As we have earlier mentioned, we strongly advocate for a minimum of a 500-foot buffer from any perennial stream with larger buffers on streams or rivers containing sensitive or threatened fish species. The Analysis Review, however, considers a 500-foot buffer from the centerline, which would mean a 250-foot buffer from either side of centerline. This potentially decreases any protective measures especially around river and stream corridors. In addition, an ephemeral streams and drainages designated as important seasonal fisheries habitat must have 500-foot buffers established to protect eggs, fry, or young fish as they begin their life cycle.

Further, in Appendix I, within the Wyoming BLM field offices, three different sets of stipulations have been identified for this project, ranging from limited to 500-foot- to 1,000-foot buffers on fish-bearing streams. In Idaho, there is a gapping lack of stipulations discussed for stream access and spawning timing limitations. Overall, the lack of consistent and uniform stipulations and buffer setbacks potentially increases the risk of contamination to streams based on the proponent's ability to keep track of the variety and numerous types of local mitigation measures. Standardizing a set of streambank

stipulations and setbacks for a linear project such as this provides the proponent with upfront expectations and certainties while creating a stronger plan of development for resource protections.

4. Other Environmental Analysis Concerns

Appendix E lacks maps illustrating Key Habitat and Restoration Areas for Wyoming. The map for Idaho in Appendix E is specific to sage grouse habitat and TU suggests a similar map be prepared for Wyoming since considerable sage grouse habitat exists within this state.

We suggest Appendix I be updated to reflect the numerous revised Land Use Plans, state agency mitigation plans for various energy actions, and include all BLM field offices and their stipulation measurements. Specifically, the following documents were not identified in the DEIS:

1. *Wyoming Statewide Wildlife Action Plan.* The WGFD has updated their Statewide Wildlife Action Plan (SWAP) to reflect new species designations, management objectives, and action plans (April 2011). This should be included in the Final EIS. No mention of any type of plan was identified for Idaho, though one was identified for Nevada (Ch 3.10-7).

2. *Wyoming Game and Fish Oil and Gas Mitigation Recommendations.* The WGFD has updated the "Oil and Gas Recommendations" to reflect changes and data updates (May 2010). Included are buffer and timing restriction discussions and recommendations which the BLM should review.

3. *Wyoming Game and Fish Wind Recommendations.* The WGFD has developed a document which provides management recommendations for wind and renewable energy development (2010). This document should be included in the Final EIS.

4. *Wyoming BLM Statewide Reclamation Policy.* The Wyoming BLM State Office has developed a statewide set of reclamation policy standards which strives to update and coordinate the numerous and often inconsistent field office reclamation plans for energy development. We recommend the Final EIS include this in their mitigation requirements as it is designed to create a more uniform policy standard that implements state-of-the-art reclamation practices.

5. *Numerous Outdated BLM Resource Management Plans.* The DEIS, in Appendix I, references numerous outdated RMPs. TU understands the amendments will be made to all land use plans for both the USFS and the BLM; however, amending outdated environmental plans without revising management objectives and resource conditions may not provide the best management guidance. The BLM should carefully review each RMP and assess whether NEPA is adequately addressed under the old management plans as applied to this transmission project.

Summary

The DEIS has incorporated a thorough and fairly extensive environmental review for this large transmission project. It is setting the bar for other transmission projects currently under federal NEPA review and TU appreciates the extent to which this analysis has been conducted. TU has made several

recommendations for updates and further analysis. We remain committed to advocating for responsible energy development that progresses in a collaborative, innovative, and protective manner for our quality public land resources.

If you have any questions or would like to discuss these comments further, please feel free to contact us.

Sincerely,

Cathy Purves

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October 20, 2011

Bureau of Land Management
Gateway West Project
PO Box 20879
Cheyenne, WY 82003.

Gateway_West_WYMail@blm.com

RE: DEIS – Gateway West 230/500 kV transmission line project in ID, WY and potentially impacting Nevada and Utah, and possible Land Use Plan and Forest Plan amendments

Dear BLM and Idaho Power,

Here are comments of Western Watersheds Project on the Gateway West DEIS. We have submitted Scoping comments and many of our concerns have not been addressed. There are striking parallels to the DOE Corridors (and associated rampant wind and other expensive remotely sited and often wasteful "renewable" energy mega-projects) that would proliferate very expensive large-scale new transmission lines. While we oppose many segments of DOE corridors, others through highly degraded lands are acceptable. Yet Idaho Power is not following the Corridor in many degraded areas so as to avoid sensitive areas. So what was the purpose of that whole exercise, anyway?

Instead Idaho Power has spun off a whole series of harmful alternatives – in portions of Wyoming, in the area of the Deep Creek Range, and in the vicinity of the Nevada and Utah border and South Hills. A route right by the wild lands of the Nevada border region and through Shoshone Basin would have severe impacts to these crucial areas. The mapping in the EIS uses the same purple color to show the "Alternative Route not Studied in Detail" and WWEC segments – resulting in much confusion and a viewer not able to clearly distinguish what is being depicted.

BLM should have denied consideration of many of the alternatives that punch through significant wild lands from the start - due to known serious sage-grouse, recreation and other conflicts. While all this time has been wasted considering very harmful routes, a route that maximizes paralleling existing lines, major roads, the disturbed land areas of WWEC segments, and energizing Idaho and other Power company's existing line, has not been is developed and considered.

We are concerned that the first sections of the EIS provide the reader with a wall of confusion that can be understood by only a power company insider. These sections must be re-done, and provided in a manner able to be understood by the public. Information that might contradict many of these sections must also be fully and fairly presented as well. Was this very confusing information placed at the start of the EIS on purpose to try to obfuscate key issues, make it seem like only Idaho Power's desires were possible, and confuse and discourage the public? Clearer mapping and detailed mapping of biological, cultural, scenic viewshed and other conflicts must also be provided.

Several of the alternative segments for the Gateway would have drastic impacts on the sagebrush biome, as well as other fragile lands that the Gateway Project would further degrade, alter, and

fragment. Of particular concern is the devastating impact Gateway and other Corridor projects would have on species like the pygmy rabbit, sage-grouse, and other increasingly rare and imperiled native species. Habitats have already been greatly altered and fragmented from many other land uses, particularly chronic livestock grazing disturbance, fences, water developments and ranching infrastructure, agency "treatments" that destroy native woody species, and combined effects of desertification processes. The DEIS provides no basis for understanding the baseline ecological conditions, and degree and severity of degradation that exists with all potential routes.

The DEIS does not adequately examine the adverse cumulative impacts on sagebrush and other native ecosystems and native biota of a plethora of new corridors/lines/energy developments/disturbances. Detailed in-depth analysis including full discussion of threats and stressors to each affected habitat and population must be provided and integrated so that a logical science-base conclusion can be drawn.

We question whether this line, especially the split in the line in Idaho, is really needed. The DEIS does not provide sufficient data and analysis to determine this – especially since industry and energy use in America has waned as jobs have been exported overseas, and the housing boom has collapsed. Stark economic realities are now much different than when this project was conceived. Energy use booms have gone bust.

ANY new line here should follow existing high voltage transmission line paths, disturbed WWEC segments and/or the Interstate to the maximum extent possible, as well as energizing not only existing Idaho Power lines, but with Idaho Power working collaboratively with other powerline operators to energize their existing lines for use. Shorter distance connecting lines can be built through disturbed areas to help achieve this, as well.

Instead of doing this, the EIS includes many potential segments located in areas that maximize disturbance and promote energy and other sprawl into less developed areas. Yet a valid ecological baseline and site-specific biological and other surveys have not been conducted to enable full and fair comparison between route segments – so the ecological importance of the alternative routes is not able to be understood in making a valid comparison. This is inexcusable, given how long this project has been on the drawing board and how controversial it and the Boardman project have become. The full link between controversy and the Boardman line and the terribly poor route choices of the Gateway EIS must be examined.

Bundling any Gateway line into existing utility corridor swaths and Idaho Power working collaboratively with other transmission line entities to use/energize their lines or corridors must also be included. This all would minimize the project's Footprint. It would reduce weed expansion caused by construction and operation (such as use of access roads), habitat fragmentation and significant loss and impacts on populations of sage-grouse and other imperiled species, disturbances to human residents, and many other adverse impacts of such a mammoth transmission project.

Thus would also eliminate the need for harmful land-degrading RMP and Forest Plan amendments, all of which we oppose. So much of the sagebrush and arid forest landscape has been woefully fragmented and developed that amending the lands use plans to allow even more development is not acceptable. Any Plan amendments should actually be done to designate ACECs or otherwise increase biological value, Visual resource, or other protections.

Landscape-level and Project Footprint baseline information highlighting areas of ecological importance in 2011 has also not been provided. BLM has internal maps that overlay sage-grouse, pygmy rabbit and other habitats and conflicts. This all should have been made public and laid out in the Scoping and now the DEIS process – so that a valid range of alternatives and analysis can occur. The Salazar Interior refuses to lay out basic information necessary to properly plan to protect and conserve wild public lands, and imperiled species, and so be able to tell industry: NO – don't even consider a route in that intact area. Develop a range of alternatives using disturbed lands instead.

A full analysis of the catastrophic habitat losses that have occurred in much of Idaho and Wyoming and portions of Nevada must be provided. This includes fire, exotic seedings, cheatgrass invasion, high density of livestock fences and facilities, high road densities, etc.

Revised and expanded analysis of the adverse impacts of potential linked or foreseeable development of new energy or other projects (wind, geothermal, fossil fuel, more transmission, etc.) in the path of any potential route of the Gateway line have not been fully examined. This is part of understanding the full range of connected, linked, and foreseeable actions. Where are sites where potential or linked development is likely if the line is routed along any segment? If this occurs, to what degree will habitats be lost and fragmented further, and species decline or be extirpated altogether in particular habitats used by particular populations? This is also necessary to understand if any mitigation is possible, the effectiveness of any mitigation, or the impossibility of mitigating impacts of ill-sited routes.

In scoping, we asked that BLM fully explain why this line, along with all the other existing proposed and foreseeable corridors are needed. It seems to us that Gateway is part a free-for-all scramble for rights-of-way right now. Various large energy companies seem to each be trying to get their own lines - perhaps even speculating on rights-of-way for lines to be sold or traded in the future (like occurred with Idaho Power's SWIP). Certainly part of what is going on here is making sure that energy can be manipulated and centralized, rather then de-centralized, in the future. This was not adequately examined in the EIS. Instead, the EIS presents a morass of confusion. The information and analysis is divorced from the rapidly changing smart grid and other energy developments.

All of the other potential large transmission projects (and the disastrous alternatives such as the potential Gateway route by the Nevada border) will result in a proliferation of roading and other human disturbances, and cut-across roads at points from existing roads. All of this must be fully analyzed in site-specific detail. While the EIS presents colorful large maps, the road issue is wholly unportrayed and unresolved. The mapping only skims the surface in overlaying the biological conflicts with these potential route segments. Idaho Power has not even bothered to conduct baseline surveys and collect and analyze essential site-specific biological information on may rare species like the loggerhead shrike or sage sparrow. It hasn't even conducted intensive new lek surveys! Thorough and detailed baseline surveys must be conducted across the habitats of the affected populations of sage-grouse, pygmy rabbits, migratory songbirds, and other rare species. Please see Comments on sage-grouse and other species in following section of our comments). No map of access roads, project construction disturbance areas, etc. is provided so that informed comparisons of impacts can be made and NEPA's require "hard look" at alternatives taken. Is this because Idaho Power is afraid of what it might find?

The impacts of Gateway (and any other foreseeable projects and renewable or other energy facilities these lines may spawn) on all sensitive species populations must be analyzed. This is necessary to understand if the potential route along the Nevada-Utah border, or the northern part of the South Hills, or the route by/through the Deep Creek Range, or slicing across the Owyhee Front would lead to extirpation of sage-grouse, pygmy rabbit, Brewer's sparrow loggerhead shrike, sage sparrow, or other rare species populations in these sites.

We are increasingly alarmed at migratory bird and bat collisions with transmission lines, and the migration routes and patterns (including areas where birds may be flying low under adverse weather conditions) must be fully examined. Migration routes in the region traversed by Gateway are very poorly understood. When renewable energy project analyses (such as the greatly flawed China Mountain EIS) have been prepared, BLM has not required that industry consultants conduct necessary multi-year intensive radar and other studies necessary to understand the large-scale conflicts with migrating passerines, raptors, or bats, including during inclement weather when migrating birds may be downed. The Gateway line could open up vast areas just east of Salmon Falls Reservoir to deadly industrial wind development and even more powerline sprawl. Full analysis of migration routes must be provided for this as well as all other potential routes or segments. Radar data on migrants must be collected for many portions of the route, specially in all areas of the South Hills and other likely areas.

This EIS must provide detailed (and honest) analysis of the catastrophic effects that the ill-sited China Mountain wind development would have on sage-grouse and many other wildlife populations as well as migratory bird populations shared between Idaho and Nevada so that the cumulative effects of this project can be understood. This is especially the case due to consideration of the disastrous routes by South Hills and the Nevada border.

We are submitting our comments on China Mountain to be considered as a general part of cumulative impacts and for inclusion in a Supplemental review. This serves to illustrate many harmful impacts of energy structure development and of inappropriately sited remote "renewable" wind or other energy projects that Gateway may spawn in Wyoming, Idaho and Nevada.

This is necessary to understand the impacts of the potential route near the Nevada border and parts of the South Hills. The combined effects of China Mountain and abusive livestock grazing practices countenanced by Jarbidge and Elko BLM will very foreseeably cause even further reductions in sage-grouse and other wildlife populations leading to extirpation of the birds west of Salmon Falls. If BLM authorizes the potential southern route by the Nevada border east of Salmon Falls and then up into Shoshone Basin, the disturbance, increased nest predation, increased predation of adult birds, and increased human disturbance including fires resulting from Gateway plowing through remote undeveloped lands, coupled with the foreseeable wind energy and other development sprawl that would be spawned. This all combined is highly likely to cause great declines or loss altogether of the sage-grouse populations in the Idaho-Nevada borderlands east of Salmon Falls. Where else are such combined effects likely – in Wyoming, Utah, or Idaho?

We have also just learned that Simplot is proposing a large wind farm by Rogerson. This industrial development will further disrupt movement and connectivity between grouse and other wildlife populations. The Sawtooth Forest southern division has issued a series of Categorical Exclusions for

wind MET towers in various sites north of the Nevada route. Plus Gollaher Mountain and other Nevada areas have also been put forth as wind development sites. Have there been rights-of-way for various energy activities issued in Wyoming, or the Project Footprint in Utah, as well?

China Mountain and Gateway and the development/energy sprawl spawned could result in a significant range perforation for sage-grouse, and significant declines in pygmy rabbit and other wildlife as well.

With lines such as this, wild land fire danger is greatly increased – including from increased flammable weeds that proliferate in areas of disturbance, from increased vehicle/OHV use, from raptor electrocutions igniting wild land fires, etc. We note BLM often fails in controlling OHV use. Many LUPs are woefully outdated and crosscountry use and road proliferation is allowed. Fires from Raptor electrocutions have ignited grasses as electrocuted birds fall to earth in southern Idaho. All of these risks must be considered. Any LUP amendments must include road/OHV closures in any new or upgraded roading caused by this project. Any upgraded roads must be returned to their original condition.

Several of the various huge transmission/corridor processes are inter-related, and the full picture of **energy alternatives** that site any power generating/transmission facilities much closer to urban areas, that focus on private land development of "renewables", and that focus on de-centralized energy and home or other solar/wind generation and conservation must be fully explored. This should be contrasted with the current apparent free-for-all Corridor Grab that appears to be unfolding across the Western Landscape, of which this Gateway EIS process is a part. Part of the Energy sprawl that appears to be occurring is aimed at keeping a chokehold on centralized large-grid projects like this one. These large projects make it easier for very large power industry players or speculators to manipulate and control and raise prices on power – as occurred with the Enron scandal.

There is increasing public outrage at huge taxpayer loan and other subsidies energy projects are receiving. For example, SWIP recently received a massive federal loan subsidy.

BLM must fully and clearly evaluate whether there really is a need for the plethora of projects and corridor paths being proposed, and must explain why Gateway, even if needed, cannot just follow or hook into other areas, rather than even considering destroying undeveloped areas. It must provide detailed information and independent analysis of why Idaho Power cannot focus on conservation measures with its customers and develop a really good smart grid, rather than wasting power and resources through long-distance transmission, and destroying so many areas of public lands along with placing another lethal hazard to birds and bats across so much public land. How much energy will be required to build this? Please provide all information –from likely import of steel to mining raw materials, to herbiciding weeds spawned anywhere across the globe. Please also analyze how much power will be lost in transmission, and the loss in the ability of wild public lands to buffer climate change adverse impacts that may result from Gateway and degradation and risks it poses. BLM cannot just take Idaho Power's/Gateway's word for a "Need".

BLM must critically examine the adverse effects, including promoting devastating habitat loss and fragmentation, large-scale visual pollution and blight of wild landscapes and high desert vistas, and

other factors. BLM must consider say No to Gateway and other projects that would have such deleterious effects, especially if the extremely harmful wild land routes are chosen.

It must require that a range of viable alternatives be considered and not a series of unmitigatable southern routes, along with analysis of much stronger conservation measures, and alternatives that fully follow existing large transmission routes and/or the Interstate. This will greatly reduce the project footprint and environmental damage.

Please incorporate the full range of ecological concerns (such as habitat loss and fragmentation for native biota under all potential segments), and the tremendous ecological footprint of a host of likely linked developments – ranging from powerlines to road networks that these projects would spawn) to potential wind, geothermal and solar development sprawl. Please also consider potential for facilitating oil and gas development, mining, and other industrial undertakings that further promote habitat loss.

How will siting of "renewable" energy complexes potentially linked to this line alter localized weather and other patterns? We understand that vast areas of arid lands will be bladed/bulldozed – cleared of vegetation, paved and solar panels placed if solar energy is developed. This will certainly alter local winds, local temperatures, and have other effects. There has been discussion of some solar facilities being sited in Idaho. As our China Mountain comments show, remote wild land wind farms have a massive roading impact, will interfere with windblown snow accumulation and the ability of the site to support moisture-dependent vegetation communities as well as hydrological processes, and have an overall terribly harmful Footprint.

How much power will be lost in the remote lands siting of energy projects that may tie into this line, vs. siting closer to metro areas and/or emphasis on local and more self-sufficient generation of solar and other power? How might local or self-sufficient generation of power alleviate or reduce rolling black-outs, and other effects of an overloaded centralized grid?

Why was the DOE Corridor process even conducted - if additional mushrooming corridors like Gateway, in relative proximity, can be obtained at any time?

If distance separation is needed between various energy projects – what is a minimal and reasonable separation?

The DEIS fails to consider an adequate range of alternatives, including those focused on locally generated and locally used power – instead of transport (and much associated loss of electrical power) across long-distances ripping apart critical big game winter ranges, sage grouse habitats, pygmy rabbit habitats, loggerhead shrike habitats, cultural and historical sites, landscapes and ecosystems critical to the integrity of National Parks and Monuments, ACEC, WSAs and Wilderness Areas, etc.

Adverse impacts to residents and wildlife and potential health hazards include harmful effects of lines and transformer sites, as well as herbicide use along huge disturbed corridors and the disturbance associated with the development that will be spawned, toxic materials associated with energy facilities, pollutants associated with linked/facilitated coal plants and other development, spills or leakage of all manner of nasty chemicals ranging from PCBs to chemical solvents, ground and surface water contamination from materials/substances transported, used or spilled/leaked, or that may contaminate

water used or "run-through" or re-injected in association with geothermal or other development that will be spawned. There will also be cumulative impacts of herbicides and chemicals used with roadways in areas where the Gateway, road rights-of-ways, and public lands grazing disturbance overlap.

There must be consideration of a removal or reduction in livestock AUMs across the entire public lands path. As mitigation please require that project proponents set aside significant sums for purchase of private lands with important biological values, as well as for purchase of public lands grazing permits and permanent permit retirement for the specific region where the corridor or linked new development is located. This EIS should amend Land Use Plans to authorize such retirement.

Understanding of the current ecological health of all public lands grazing allotments in and near all potential segments is necessary in order to conduct a necessary NEPA analysis of all the direct, indirect, cumulative, and additive/synergistic adverse effects of chronic grazing disturbance. It is necessary to understand the effects of the additional disturbance associated with the project, which may be much more likely to result in new invasive species problems in landscapes already degraded and disturbed by livestock, and thus "primed" for weed and biological impoverishment invasions. See Fleischner (1994), Belsky and Gelbard (2000), Gelbard and Belnap 2003.

A Supplemental EIS is required to fully address the effects on public lands of this tremendous new disturbance on top of the adverse effects of habitat degradation, loss and fragmentation caused by livestock grazing, and often linked wildfire, roading, agency forage and vegetation "treatments" and other disturbances. Please see Fleischner (1994), Belsky et al. 1999, Belsky and Gelbard 2000, USDI BLM 2001 Belnap et al. Technical Bulletin on microbiotic crusts), Connelly et al (2004), Knick and Connelly (2009) *Studies in Avian Biology*, March 2010 USFWS Federal Register Warranted But Precluded Finding for Greater sage-grouse, to understand just some of the broad array of adverse impacts from livestock grazing disturbance that chronically occurs across many portions of any potential route and the linked development that would be spawned.

How will it be possible to rehab disturbed lands (soils, microbiotic crusts, native vegetation communities, fragile sagebrush sites) faced with continued chronic grazing disturbance? There is no annual monitoring, Ecological Site Inventory, Rangeland Health, allotment evaluation, lentic or lotic PFC monitoring or examination of condition of habitat components or other data essential to understand the current condition of the lands and waters that Gateway potential routes and their Footprint would impact.

All of this is necessary to understand both indirect and cumulative impacts, as well the feasibility or likelihood of any rehab of disturbance being successful, risk of weed invasions with disturbance, and impacts of current chronic grazing disturbance and degradation stressors on sage grouse and other habitats. Current science on the very long disturbance interval of many arid sagebrush and other communities must be provided. See Knick and Connelly (2009), for example.

There is no baseline information provided on the existing livestock facilities that serve to degrade or fragment essential species habitat components across the Corridor and landscape impacts. This includes livestock fences, water developments (spring "development" and de-watering projects, water pipelines and troughs, wells), salting sites, etc. – all of which may significantly impair ecological

processes, and have spawned an extensive road network over time and are also deleteriously affecting sage grouse, pygmy rabbit and other important and sensitive species habitats. Fleischner (1994), Frelich (2003), Connelly et al. 2004, Knick and Connelly 2009. This is also essential to understand the impacts additional fencing, roading, potentially expanded pumped livestock water sources, and other development that the Corridor projects and linked wild land industrial development sprawl that would occur from Gateway providing a power source in wild land areas.

There is not adequate mitigation or required mandatory actions associated with this EIS to adequately address the deleterious effects of this powerline, transformer stations, expanded roading, and all disturbances associated with construction, operation and de-commissioning. This will be amplified by livestock degradation of the corridor area and its surrounding areas where development will be promoted. This is essential to understand, because any disturbance effects of livestock grazing are likely to be exacerbated by global warming processes.

Global warming is also likely to increase cheatgrass and other invasive species problems resulting from corridor and livestock, roading and other disturbance. This will lead to further altered wildfire cycles (Whisenant 1991, Billings 1994). See Pellant 2007 USDI BLM Congressional Testimony, See Wyoming Basin Ecoregional Assessment, see Nevada Ecoregional Assessment, Knick and Connelly (2009).

How much will the risk of wild land fires (and thus significant losses of habitat) increase with Gateway development? Wildfires that start due to construction and operation accidents (raptor collisions with lines, downed lines, explosions, maintenance or operation of vehicles, etc.) may affect a vast area of important and critical habitats for ESA-listed species and sensitive species like sage grouse and pygmy rabbit. There is not even a baseline map provided of fire history. We stress that this must be fully considered in Wyoming, too, as cheatgrass is becoming an increasing problem there and large-scale wildfires will follow its advance. In Idaho, cheatgrass sites are no being invaded by medusahead and/or rush skeletonweed, etc. in grazed disturbed landscapes.

Fences have serious adverse effects on mule deer, elk, bighorn sheep, antelope, sage grouse, and many migratory bird species (Connelly et al. 2004), Knick and Connelly (2009). What is the current Footprint of fencing and other livestock infrastructure in the affected landscape?

How does this impact wildlife and recreational uses? How does it block or impede big game use and movement – including during periods of snow accumulation when any supposed "wildlife friendly" spacing will not be "friendly", movement to seasonal ranges, etc. Where are all critical or seasonal ranges located in the landscape impacted? Fences provide even more elevated perches for brown-headed cowbird nest parasites on species like sage sparrow, Brewer's sparrow, sage thrasher, loggerhead shrike, etc., or perches for egg predators like ravens, or predators on nesting birds. Livestock trailing along fences promotes weed corridors and fence disturbance areas like roads provide travel paths for predators.

Placement of high tension lines in or near Wildlife Refuges or state WMAs, sage grouse leks, habitats essential for connectivity, migratory bird flyways, etc. may have serious adverse impacts to birds – and result in mortality and population losses, including of birds that are internationally significant. Where are all known migration corridors or movement pathways? Please conduct necessary baseline studies

to determine migratory bird routes, especially in areas where such routes may be less known. What percentage of the population of each species may use each route? How might this corridor and also the development that may be spawned such as industrial wind farms on remote ranges affect population viability?

All of this must be determined now in a comprehensive supplemental EIS analysis. Many of the Land Use Plans to be amended contain specific protections for big game and sensitive species, as well as some wildlife species "forage" allocations and habitat protections and often population goals, and prohibitions against causing adverse impacts to sensitive species. The consequences of any Amendment cannot be understood unless current and comprehensive wildlife information is provided, and all other parts of the Land Use Plan are complied with. Especially in the case of old land use plans, there have been many more miles of fence, sagebrush loss, energy or other adverse impacts than the plans examined. All of the adverse developments in excess of what the plan provided must be examined before any harmful Gateway amendment can occur.

Please provide a full and detailed analysis of how any rehab of disturbed areas would occur, including how any rehabbed areas would be protected from grazing. Entire pastures must be closed. Otherwise more fencing would need to be built. Will native species only be used in any site rehab? How will global warming impede rehab of disturbance zones? Only local native ecotypes should be used in rehab efforts. A minimum of 5 to 10 years rest, and specific recover criteria including recovery of microbiotic crusts and the native shrub component must be required.

Invasive species like cheatgrass (promotes wildfires – see Billings 1994) and tumbleweeds thrive in disturbed areas. Windblown tumbleweeds and tumblemustards at times endanger motorists on roads, clog fences, heighten fire danger, etc. in the Idaho path of Gateway. There is no detailed analysis of the adverse effects on health and safety of motorists on federal, state, and local highways in the project potential route Footprints. What dangers does the infrastructure foreseeable here pose? Besides windblown weeds - what effects might any additional facilities have in concentrating livestock or big game use on roadways? What exposure will passing motorists have to herbicides used to control weeds thriving in corridor disturbance zones? Please note that the BLM Weed EIS (Vegetation Treatment EIS) is considered by many to be greatly inadequate in addressing ecological and human and wildlife health concerns related to the use of a great number of herbicides across public lands. Various Forests have only old, outdated, or minimal to non-existent analysis of herbicides currently in use and their adverse effects to wildlife and humans.

How will this affect the safety of small plane operation in all areas, and landing at smaller airstrips across this vast area in the Footprint of all potential routes? This can have ramifications for emergency medical service in remote areas, state or federal agency monitoring of land conditions or wildlife populations, wild land fire fighting, and many other increasing uses.

There is no adequate discussion or analysis of the current ecological health or importance of all the lands that will be affected. This is important to understand the difficulty of any rehabbing and the likelihood of invasive species dominance, and altered fire cycles caused by Gateway development. It is necessary to understand the relative scarcity/tremendous ecological importance – of lands that will be impaired as Gateway tears apart the remaining less developed landscapes and habitat areas in

shrubsteppe, salt desert shrub and other arid habitats especially under the very harmful southern routes in Idaho. Landscapes will be further fragmented and torn apart once the Corridor infrastructure is in place.

Please conduct a full-scale analysis of the effects of this development on short term, mid term, and long-term viability of all BLM sensitive species populations and all TES species, and the significance of the habitat areas and populations to the species as a whole (see Wisdom et al. 2002, Connelly et al. 2004, Knick and Connelly 2010 as a starting point for this analysis).

Our Scoping Comments referenced the following basic information in the context of the DOE corridors but also relevant to Gateway in understanding the context of even more energy sprawl. The DEIS has not detailed and analyzed such parallel concerns as the following:

There has been a large amount of discussion and promotion of wind energy development on remote public lands in areas in and near the SWIP swaths. Ely and Elko BLM know this – why have you not included that here? The windy ridges and plateaus (both in the area colored purple on your map as well as across of the Nevada landscape that you have omitted) lands are critical to maintaining viable populations of sage grouse and pygmy rabbit. They are also critical migration corridors for migratory birds, and placement of hazardous powerlines, wind facilities, likely lighting that may lure some species during migration, etc. would have international significance – as these serve as migration corridors for raptor, migratory songbird and perhaps bat movement north to Canada and south to Mexico. The bottom line is that the EIS appears to have purposefully downplayed the linked and foreseeable industrial wind farm development areas to cover up the tremendous ecological footprint that these corridors would have.

Figure 2.2.4 does, however, show areas of "Potential Geothermal Energy Development". This includes the entire range of sage grouse and pygmy rabbit in Nevada including the Nevada Owyhee Canyonlands, the SWIP zone of development north-south through Nevada, significant wild and undeveloped areas of Oregon including the Trout Creek, Alvord Desert and Steens region and portions of the Owyhee. It also includes large swaths of the Jarbidge BLM lands, Bruneau BLM lands, and much the northern Snake River Plain and portions of the Idaho batholith. Anything that facilitates industrialization of this landscape will have a tremendous adverse impacts to sage grouse, pygmy rabbit and other important and sensitive species in this region, as well as rare aquatic biota.

Development of various alternative energy – including geothermal energy facilitated by Gateway - would have a broad array of adverse effects to wildlife, recreational uses of public lands, and potentially even agriculture. Tapping into or altering geothermal waters would accelerate aquifer depletion. Geothermal development would also deplete, alter and potentially destroy important recreational hot springs, or areas with important cultural importance to Native Americans.

Large geothermal facilities themselves have a significant Footprint on the environment, and lead to further habitat loss, alterations and fragmentation. The Footprint includes new and/or expanded road networks. All the adverse effects associated with these - from elevated perches for sage grouse nest predators or pygmy rabbit predators in livestock-degraded landscapes that have suffered extensive alteration of shrub structure and denser sagebrush - to weed invasions from project-disturbed areas choking pygmy rabbit habitats - must be considered. There is also greatly increased human activity

(including during sensitive wildlife wintering, birthing or nesting periods) associated with siting energy facilities in remote areas, as well as increased wildlife mortality on roads, or from collisions with infrastructure.

As this project will result in new roading, new development, transport or use of hazardous substances and use of environmental pollutants/contaminants, a broad array of effects on ground and surface waters may occur. These effects range from increased sedimentation (caused by new or expand road networks) that pollute and clog endangered or sensitive salmonid, springsnail or other habitats, to pollution/contamination from PCBs/other harmful utility industry chemicals, petroleum products, herbicides, etc. contaminating ground and surface waters – with impacts to aquatic species, wildlife, and human populations.

Construction of expanded roads or facilities will alter hydrological processes, and may affect both ground and surface waters – and a broad range of native wildlife species, and human uses and enjoyment of wild land waters – including fishing opportunities. Sage-grouse brood rearing, especially in desertified livestock-depleted landscapes is tied to green vegetation on wet meadow and other areas. Many of these sites have already been greatly reduced and depleted – and agency use standards are typically far too lenient to protect what remains from grazing and especially trampling impacts. Roading that alters hydrological flows, or energy development linked to this EIS that depletes ground or surface waters, may have significant adverse impacts to sage grouse brood rearing habitats.

Of great importance are the effects of potential further alteration of hydrological processes or depletion on exceedingly scarce spring sources in high desert regions. Springs are critical to a broad array of wildlife, and many have already suffered large-scale degradation, depletion and in some cases been killed entirely by the effects of livestock grazing and BLM and forest service "development" for livestock. See Sada et al. 2001, BLM Technical Bulletin, describing the sad and sorry state of many of the region's springs. A Supplemental EIS must fully examine the current condition (including both water quantity and quality and any documented changes over time up to this point) of springs, seeps and riparian areas across the affected landscape. It must then determine the effects of al Gateway alternatives and associated, linked or foreseeable development on these critical riparian/watershed areas.

Riparian areas across the arid West will be under even greater stress, and facing further flow reductions due to diminished snow pack, increased temperatures, and other factors linked to global warming/climate change. How will any potential route with this project and the linked and foreseeable development amplify global warming effects and disruptions/losses to riparian areas? How will development of Gateway affect municipal watersheds?

A much broader range of alternatives must be developed to focus on conservation and responsible transmission siting that includes using existing corridors and disturbed areas wherever possible. There has been no systematic and fact-based examination of any "need" for the particular swaths. Promoting and relying on huge energy projects detracts funding, interest and incentives (both federal and private) from efforts to develop local conservation, and home-produced energy such as solar or wind-powered houses with power generated on-site.

Will this project promote more global-warming gas producing coal-fired plant emissions?

The DEIS provides some species lists, and minimal mapping of biological information. No adequate current, site-specific surveys for rare or imperiled species over the footprint of all potential routes has been presented. Rare plants are likely to be greatly affected by invasive species promoted by disturbance from construction, operation, and linked developments.

We are appalled at how little consideration is given to nationally significant biological resources and rare species that are affected and will be further imperiled or extirpated under the profligate development of public wild lands that this EIS promotes with many of the alternative routes. Two prime examples are sage grouse and pygmy rabbit. Powerlines provide ample sage grouse avian predator and egg-predator perches – where ravens can scan for nests. Powerlines are always accompanied by new roading. Additional roading and other disturbance also increases sage grouse nest predator travel corridors.

It is alarming to us that "mitigation" for mega powerlines and energy corridors is minimal and consists largely of minor measures like fence reflectors and a bit of "research" dollars, or conservation easements that typically allow abusive grazing, predator killing, and other harms to continue, or funds to Game Departments or BLM to once again prove that already known to be highly predictable wildlife declines and species loss will occur. The other standard "mitigation" is killing trees and shrubs – which often has significant adverse impacts and is not really "mitigation" but often is more aimed at appeasing livestock or trophy hunting interests.

Such highly damaging powerlines, carved into important habitats for sensitive species are virtually always given the greenlight – despite the long-lasting tremendous impact these developments have on wildlife, watersheds, native plant communities and much-increased risk of weed development, cultural sites, wild land recreational uses, etc.

BLM and the Forest must clearly state that impacts cannot be mitigated in many segments of potential routes for this line.

This EIS must fully examine the large-scale deleterious effects of development of this and other foreseeable Corridors/projects, as well as other foreseeable linkage powerlines that will result, and provide some sizable mitigation funding and significant mitigation actions – not just giving agencies some funds to study grouse decline and kill some junipers, and fragment more habitats.

BLM must use the methodology and science in the Sage Grouse Conservation Assessment (Connelly et al. 2004) and the recent Knick and Connelly (2009) *Studies in Avian Biology* to conduct a science based analysis of the direct, indirect and cumulative effects of the designation and/or development and use this as the basis for developing alternatives. Reference to a series of incomplete and flawed HEA and other "models" is greatly inadequate.

Please conduct current and updated habitat impact and fragmentation analyses for all sage grouse populations as described in the Connelly et al. 2004 Assessment and Knick and Connelly (2009). Then, take this one step further, and examine the effects on "Population Management Units", as described and defined in, for example, the Nevada Sage Grouse Plan. Since both the sage grouse Range-wide CA

and the state-specific planning documents like the Nevada Bi-state plan are now a few years old, please collect and apply current data. In Nevada, for example, the claimed population increases of sage grouse from much more intensive sampling in the early-mid 2000s are now dropping. There has also been tremendous wildfire habitat loss of critical lek complexes and other habitats. In all of these efforts – the broader populations of the CA and the smaller PMUS, please examine the current effects of fragmentation and loss of habitats – including fire, livestock fences and other infrastructure, roads, existing and foreseeable energy development, powerlines, etc. Please project effects to populations over time with and without development of this mega utility corridor in the area. Please do this under all of a greatly expanded range of alternatives that focus on disturbed areas.

In Scoping, we asked that you use analyses as found in ICBEMP and other current science-based assessments such as the ICBEMP Wisdom et al. 2002 species examination and other ICBEMP documents, also Nevada Wisdom et al. 2003 assessment, and the Wyoming Basin Environmental Analysis (WBEA) to examine the full range of ecological threats and habitat fragmentation that currently exists for other sensitive species. This has not been done.

Again, as mitigation, WWP requests that Idaho Power set up a substantial fund to purchase and retire public lands grazing permits across regions where sage grouse and other native wildlife habitats and populations will be adversely affected by this project. This EIS should work with BLM and the USFS to contain language that amends Land Use Plans and allows for permanent retirement of grazing permits so purchased.

This project claims to be decreasing "congestion" and enhancing capability of the grid, but the EIS does not provide necessary analysis to allow understanding of why only the Proposed Action or routes in that and only that location, would magically achieve this compared to a broad range of other alternative disturbed locations, conservation actions, and more localized energy development.

Will this facilitate remote siting of nuclear plants? If so, this is a major human health issue that needs to be thoroughly examined. This will also generate hazardous waste that somehow must be dealt with. Plus, nuclear energy requires a large volume of water for cooling, and any nuclear development in the water-scarce West may strain and deplete waters – plus has a potential for contamination and pollution. Is this project (in the Jarbidge area) potentially or foreseeably or known to be linked to military uses? Will this facilitate additional phosphate mining, cyanide heap leach gold or other hard rock mineral mining, and linked mercury poisoning of regional airsheds and waters from this?

The project routes will greatly blight and mar scenic viewsheds, wild natural settings, intrude on roadless and remote lands, etc. The EIS must fully examine the adverse effects to public enjoyment of cultural and historic sites, and potential adverse effects. WSA and roadless inventories must be conducted, and these lands identified and protected as part of this process.

Please provide mapping and analysis that overlays Dark Night Sky areas with the path. How will this project adversely impact the Darkness of Night Skies? This has not been addressed, nor facility lighting minimized.

The EIS has not addressed the likely amount of intrusive lighting that would be associated with various facilities, or with the developments that would be spawned, or developed efforts to avoid or mitigate this.

The EIS must do a much better job of describing the type of transmission, gas pipeline and other existing rights-of-way, as well as mining and other activities in or near all segments.

ADDITIONAL BIOLOGICAL and OTHER CONCERNS

The Gateway EIS's sage-grouse, pygmy rabbit and other wildlife baseline environmental information, data presentation, and analysis are greatly deficient. A Supplemental environmental document must be prepared that provides a valid basis for development and full and fair evaluation of alternatives.

We are appalled that objections of single landowners can be the basis for generating whole new greatly harmful alternatives that would impose massive new intrusion onto remote areas of public lands. The American public owns the public lands – and protection of their values is critical. This EIS is an abject failure in accurately describing the environmental baseline, in examining a viable range of alternatives, and in complying with sage-grouse and other biological conservation plans and protections for native biota of all kinds, as well as wild land and recreation values of the public lands.

HEA and Other Vague, Incomplete or Inadequate or Models

We are very concerned about the reliance on the HEA and other models. HEA is supposed to be a "method of quantifying the permanent or interim loss of habitat *services* [what an absurd term!] from project-related impacts".

This model is not adequate to establish a valid mitigation/compensatory plan, or to regulate or understand project activities and impacts during construction, operation and de-commissioning. It omits or downplays key elements of landscape setting and project context, the relative importance and scarcity of undeveloped wild habitats and landscapes impacted by Gateway routes, and many other key attributes necessary to understand impacts of all potential routes.

The DEIS must examine conditions to at least 10 miles distance from leks, and fully consider that grouse may nest even further from leks and move over vast landscapes in the course of the year. The full Gateway Footprint must be understood in terms of affected populations and the landscape that birds use over the course of the year in fulfilling all of their seasonal needs, including habitats that ensure movement and connectivity. Core areas do not do this.

DEIS 3-11-18 says that the model itself has not even been finalized. How in the world can the public be expected to comment on this? A SEIS must be provided that provides the public with the final HEA or any other model used - for comment.

The EIS states: "the 'currency' under the ESA is the number of individuals in a population". First, we object to this characterization –especially from an entity that apparently does not understand that these individuals require undisturbed habitat and the Footprint of the project impacts crucial habitats in myriad ways unexamined in this cursory and incomplete EIS. Second, why is there no site-specific

information presented on the CURRENT 2011 local and regional populations and number of individuals impacted of sage-grouse, Columbian sharptailed grouse and many other imperiled species?

Following on this "currency" – It is certainly necessary to understand how reduced populations have become, and predictions of how severe foreseeable declines will be –to understand the "value". How many individuals are found are in all populations in all areas traversed by all potential routes now? How are these populations defined, and what are their boundaries? How much available habitat, and of what quality is this habitat, for all existing populations. How will any potential route (such as the calamitous route by the Nevada border – and others in segment 7, or the southern Owyhee route in segment 9, or the various routs that cross the Idaho Deep Creek Range impact habitats and populations of rare and imperiled species?

Also following on this "currency" scheme: Money can't buy you enough wild birds to make a sustainable population and make up for the destruction that you do --- If your route is essentially so damaging it is not mitigatable. This is the case with many portions of the various Alternative routes through intact sagebrush and other wild lands. Sage-grouse and other wildlife need a complexity of connected habitat types – and areas with suitable conditions resulting from topography, vegetation, water sources, etc. can not be replicated. Models based on fallacies or mere acreage replacement are divorced from understanding a species needs in time and space.

Sage-grouse and other wildlife are increasingly boxed into smaller and smaller areas – and industry like Idaho Power refuses to leave these blocks of remaining habitat alone while the Salazar BLM abdicates its duty as a steward of the public lands in failing to require that the energy industry route projects in existing Corridors and disturbed areas.

Agencies cannot use "acres disturbed" in understanding impacts, or in determining mitigation and other measures. The entire Footprint of the project on a landscape species – like sage-grouse must be examined. The visual blight/intrusion, noise, roading, weed expansion, predator-promoting and all other impacts and the greatly expanded industrial Footprint of all potential routes must be provided.

Not only is the DEIS devoid of a finalized plan for modeling habitats, it also lacks DDC analysis. DDC in the EIS is tied to the Wyoming core area concept model. WWP believes this Core area concept, and continuing and additional development and fragmentation that it allows is not adequate to conserve and protect sage-grouse in nearly all instances. But the Idaho Power EIS doesn't even conduct and present necessary minimal analysis to understand impacts on core areas.

A great flaw of the Core concept is that it is focused on leks - and promotes sacrificing/triage of whole land areas and important wintering and other habitats if lek numbers and density are not as high as other areas. Thus, populations that may have fewer birds are being sacrificed.

But sage-grouse across the Project Footprint are in such a perilous state that all efforts must be made to retain all populations – and not write some off just because a Core Model does not include them.

In fact, reliance on the core concept can have devastating impacts – if, for example, a large wildfire removes the main Core Area in a region, or higher populations collapse due to disease or unforeseen

events. Such shortcomings and risks must be fully examined – especially since the project heightens fire risk.

DDC information and analysis must be provided in a SEIS for all areas not just Wyoming. See 2010 Doherty et al. Westwide Sage Grouse mapping, but considerations must extend far beyond just this.

A full and fair analysis of the impact of this project on all affected habitats and populations of sage-grouse must be provided. How viable will all populations in all areas of the footprint of all potential routes be? How viable are they now? In 10, 20, 50 and 100 year time frames?

The EIS doesn't even guarantee that this minimal DDC level of analysis will be completed – even after a preferred Alternative is selected.

There is no excuse for Idaho Power's failure to have conducted all of these analyses and provide them to the public at the stage of the DEIS. Informed full public comment cannot occur until this is done. The degree and severity of impacts of any route cannot be fully understood. It is also impossible for the agency to understand the need for additional or altered alternatives or how much mitigation would be required until this is done.

A large flaw in the Core Area concept is that it is lek based. Thus, it may omit essential wintering, nesting, brood rearing or other habitats that are key to the survival of sage-grouse a landscape bird, and also that provide crucial connectivity.

A SEIS must be prepared to provide a tremendous amount of information lacking in the SEIS for sage-grouse and all wildlife species habitats and populations.

We can only conclude that Idaho Power is rushing to get this EIS shoved through before public outrage at these expensive and environmentally damaging transmission projects escalates further. As soon as an EIS process is completed, and a record of decision signed, Idaho Power could turn around the day after, and essentially sell the right-of-way to another party. If full analysis is not conducted now, there is no hope that it ever will be adequately done. Foreign developers, energy speculators, or anyone else could buy the right-of-way. Unless iron clad mitigation based on best available science and full current baseline data is laid out and alternatives impacts clearly understood, there is no way that impacts on species and their habitats will actually be minimized or properly mitigated.

Additionally, the methods described for DDC analysis are greatly inadequate. These include BLM using a DDC "tool" to automatically sum up disturbances within the DDC analysis area, and determine how many occur there. It appears the "disturbance" of a road will be treated the same as the "disturbance" of a powerline – yet the project will often result in BOTH occurring in the same area. Is a mine disturbance the same as a fence? Is a fence considered a "disturbance"? Since fences cause very significant mortality to sage-grouse, certainly these too must count. Is herding thousands of domestic sheep and sheep camps annually situated on top of grouse leks a "disturbance"? Is a fire a disturbance? How in the world will all of this information be considered and integrated? Is a transmission line disturbance the same as an oil and gas rig disturbance?

We are baffled at how this process could have already taken so long to date, yet essential data and analysis are lacking. This appears to be a "don't look, don't find" EIS where damaging alternatives were spun off without forethought as a kneejerk response to some private interests.

3-11-26. Sage-grouse use breeding habitats with much greater shrub canopy cover than just 10-25%. This must be corrected, and areas with greater canopy cover included. All mature and old growth sagebrush communities must be identified and protected. Where are these areas in the Project Footprint?

The EIS mentions that sage-grouse are capable of traveling long distances. WHERE then is the necessary analysis of how and where sage-grouse from all affected populations move through or across the lands affected by all potential routes or project components and linked developments in the course of their annual cycle?

Much more current and accurate information must be provided on the number of actually active leks in all four states based on comprehensive systematic baseline surveys within at least 10 miles of all potential routes. Some wildlife departments at times try to conceal how severe declines and losses have been in some areas. Full information on all lek counts for all periods of time for all affected populations of sage-grouse and sage-grouse habitat must be provided. As part of this project, intensive baseline surveys and lek searches must be conducted across the affected habitat area and population – a minimum distance of 10 miles from all potential routes. Habitat quality and ecological conditions in this area, too, must be assessed and provided.

Table 3.11-3 provides only "Miles of Habitat Crossed". Idaho Power cannot be allowed to get away with considering only the immediate area of the powerline as the project Footprint – as appears to be the case with info presented so far. What is the quality of all this habitat? When is it used, and how is it connected to large blocks of undisturbed habitats? How fragmented is this habitat? What is the habitat configuration – as sage-grouse habitat is not linear – and what are the threats to it?

DEIS at 3.11-27 states "there are approximately 2,124 known greater sage-grouse leks within the state of Idaho (854 occupied, 98 unoccupied, and 1,172 undetermined status); 2,257 leks in Wyoming (1,871 occupied, 285 unoccupied, and 101 undetermined status); Nevada is "uncertain". There is a significant difference in how states identify active leks – in Idaho – occupied once in 5 years, vs. Wyoming –occupied once in 10 years. WHY haven't uncertainties "undetermined" status - within ten miles of all potential routes been cleared up by now?

The EIS attempts to minimize impacts by looking at leks within a mere 0.6 miles of the Proposed Route. It states there are 8 leks occupied or undetermined within 0.6 miles, 66 leks within 2 miles, and 511 leks within 11 miles of the PR. WHAT about all the other Routes, including the Nevada route? WHY isn't this information provided – for distances of out to 10 miles? Use of 0.6 miles is patently ridiculous – given all that is now known about how sensitive sage-grouse and other species are to visual, sound, roading and other habitat disturbance. See XXX.

The EIS further tries to minimize the colossal project footprint by claiming that the PR would cross through approximately 677.3 miles of suitable sage-grouse habitat. What about all potential routes?

But moreso – focusing only on the exact linear path in no way addresses the full construction and operation disturbance impact of a mammoth transmission line.

The EIS directs a reader to Appendix E, and Figures 11-2 and 11.3 for Core Habitat. These maps reinforce our concerns that the Core Area concept leaves very important lek areas out. These maps also fail to depict Nevada leks at all.

The text also refers a reader to Table D-11-9 which is supposed to have info for leks along alternate routes, including Nevada. But without mapping this – it is impossible to understand the location of the leks, or the impact of the project.

We are dismayed to see despite the series of fancy maps, there is no mapping and identification of the very important pygmy rabbit habitat along all routes.

In understanding the degree and severity of impacts of the footprint of this development on wildlife species, rare plants, the health and integrity of native vegetation communities, it is essential that regional, local and site-specific mapping of current cheatgrass/medusahead and other weed presence, as well as risk of expansion, be undertaken. Then, the risk of the roading and ground disturbance impacts of this project in accelerating or causing weed infestation must be understood across the project Footprint. This analysis must fully consider the role of continued livestock grazing on top of

Here are photos of the large-scale disturbance associated with the SWIP powerline now being built in Nevada to illustrate out concerns. Large areas of access roading are bladed, areas of tower assembly are mowed, bladed or reduced to bare dirt. Then – large herds of livestock are herded and or grazed for months at a time right on top of disturbed lands. The end result? Swaths of Project-caused weeds soon spread crosscountry in the wake of livestock disturbance to microbiotic crusts, soils, and plant communities. Photos August 2011 White River Valley near Grant Range. View of one portion of upper crossarm assembly site. Roading was churned to powdery dust, and access road appeared to be new or freshly bladed to a much greater width. SWIP was an Idaho Power right of way sold to another party.

The EIS woefully fails to provide information necessary to understand and visualize the degree and severity of impacts of project construction and rehab.

The EIS woefully fails to provide detailed information on current ecological conditions, rangeland health status, degree of depletion of understory, condition of microbiotic crusts, etc. since many recent BLM assessments have been highly flawed and try to cover up livestock grazing and trampling impacts – new studies must be conducted in te footprint along all possible routes.

In addition, vehicles accessing or passing by the site (both workers and the public) will carry weed seeds to and through the Footprint – and livestock then transport seeds onto bare project-disturbed soils.

As part of this process, any RMP amendment undertaken must amend RMPs to provide for Integrated Weed Management to overcome the standard BLM/FS "spray and walk away" approach. These amendments must include that no grazing occur on the disturbed lands of the project Footprint until recovery of native vegetation occurs. Grazing must be pulled back to existing pasture boundaries – i.e. the "pastures" through which the project and access roads pass must be closed to grazing use until successful rehab with native species is realized.

In the broader landscape, all these MFPs, RMPs, Forest Plans must be amended to require quarantining of livestock moving from a weed-infested area onto any native vegetation sites for a suitable period of time for weed seeds to pass through animals, and cessation of grazing disturbance on lands until infestations are controlled.

In the case of any raptor electrocution, downed line electrocution, or construction-related wildfires caused by the line, the owner of the right-of-way (Idaho Power or any party IP may sell this to– as happened with SWIP) must be held responsible for the costs of rehabbing fires with native vegetation only.

The project passes through a mish mash of old or highly flawed MFPs, RMPs, and Forest Plans with greatly inadequate measures to protect from OHV/roading, excessive grazing including harmful practices, overstocking, and grazing of weed-vulnerable lands, and where a battery of other projects have occurred in prime and important habitats already.

We are greatly concerned about the amount of herbicide and the types of herbicide that may be used. Instead of reliance on the spray and walk away approach, full and integrated IPM must take place. There is significant potential for soil contamination, drift including on windblown eroded soils, and many other problems with herbicide use. A solid protocol for effective treatment – including preventive actions and prudent post-rehab controls grounded in IPM must be established.

We stress that there are no adequate protections provided here for prevention of excessive soil erosion, loss of microbiotic crusts, and many other adverse impacts of gateway.

We also believe that BLM's Herbicide EIS is deeply flawed, and cannot be used as the basis for widespread application of herbicides here. Full adverse impacts of a battery of chemicals used in pygmy rabbit habitat, or spotted frog habitat, or sage-grouse nesting habitat, for example, have not been adequately examined. Rabbits may be exposed to chemicals while they are being applied, in soils in burrows, and on vegetation consumed.

Just how much herbicide, and what type, will be applied in association with any part of this project? Will sprayed dead zones be used around facilities?

TES Concerns

Similarly, the EIS is inadequate in presenting information and analysis for black-footed ferret, Canada lynx, Columbia spotted frog, gray wolf, grizzly bear, mountain plover, northern leopard frog, whooping crane, yellow-billed cuckoo, several spring snails, rare Colorado river fish, and other habitats. One of the concerns with routing of this line in these areas is that is likely to set a precedent for all manner of energy lines, such as gas pipelines to occur in the future if the RMPs are amended and Idaho Power is lowed to carve a brand new route with this line. The gray wolf is still listed in Utah and Nevada and may be impacted by potential routes.

None of the mapping shows all the access routes. So how can the impacts – including such impacts as downstream sedimentation, really be understood, analyzed, and mitigated?

Transmission line wires must be prominently marked to maximize visibility and reduce avian collisions. Visual analyses must be conducted using such marking. Any cell or other towers linked to this line must be "bundled" with other sites, and night lighting hazards minimized. Night lights, especially under cloudy conditions, appear to draw migrating birds in – and they are killed by collisions with wires or tower structures. This is also a concern with the various transformer and other sites associated with this line. "Bundling" of ANY such developments with other night sky light polluters must occur.

How much will this project and linked developments alter the darkness of night Skies in remote areas?

How much will dust pollute the air?

3-11-39. The DEIS proceeds to lump many sensitive species (BLM and Forest). This is greatly inadequate in addressing impacts, especially when Idaho Power hasn't bothered to conduct site-specific surveys across all potential routes. Species are lumped due to habitat requirements or life history traits. This is nonsense. EACH of these species is a species of concern, and has specific habitat requirements. This appears to be another part of the Idaho Power EIS's "Don't Look, Don't Find, Forget About" superficial and self-serving schemes to avoid honest understanding of the degree and severity of impacts of all potential routes so that a valid comparison can be made. It also panders to, and is biased towards, interests who are trying to shove the project onto fragile public lands.

This entire part of the EIS and its meaningless Appendix Tables must be re-done and detailed baseline surveys, analysis, and mapping occur. Until this happens the significance of the impacts and losses to species and the public lands cannot be understood.

The EIS refers to Tables buried deep in Appendices – Table D 11-1 and D-11-2. When a reader looks at these Tables –only the most simplistic of 1 or 2 sentences of information is found. If species are present, entire segments are where found are numbered, with no specificity of any kind on where in the segment they may be found. Thus there is no way to possibly understand the impacts of the project, its access roads, and entire habitat alteration and destruction Footprint on habitats and populations, and how population viability will be impacted. California bighorn sheep, black-tailed prairie dog, Brazilian free-tailed bat, American marten, and a host of other very important species.

EIS 3-11-48 to 51 has MIS species for only one two Forests. Sawtooth Forest MIS species - or any others impacted by any potential route must be considered. And is there only one MIS species on the Caribou-Targhee?

TES Plan amendments include Medicine Bow permitting Gateway Proposed route intrusions into northern goshawk habitats. This should not be allowed, due to viability concerns.

There must be much more concern and consideration given to intensive surveys and avoidance of all raptor species nest sites during sensitive nesting periods. Golden eagles, for example, may start nesting in January. No project construction (including road activity) can be allowed during nesting periods. Have detailed site-specific surveys over an area 10 miles from the Project been conducted?

All the EIS does here is leave the door wide open for Idaho Power (or whoever the ROW might be sold to) to pressure BLM or the Forest to issue waivers. DEIS 3.11-53 states "

BLM, in particular, does this all the time in Wyoming for Oil and Gas, and also now has been issuing waivers for wind energy - as in Nevada Spring Valley Wind. In fact, the so-called "mitigation measures"/avoidance periods have often been routinely waived for industry. So the EIS's that promised mitigation/avoidance really weren't worth the paper they were written on. This is precisely what IP is doing here Gateway's supposed "mitigation measures or "EPMs" and other readily waived **non**-protections. The DEIS states" "a list of all state and federal restrictions can be found in Appendix 1; the Project would be required to comply with all agency timing restrictions **unless an exception is granted by Agencies**". This leaves the door wide open for Idaho Power to exert political pressures through backroom methods and get any supposed mitigation and protections promised to the public cast aside as the project is buil and operated.

Further, many of the agency boilerplate mitigations have proven completely inadequate to protect species like sage-grouse and many other rare animals and rare plants, and much more conservative and protective measures must be put in place. All high quality habitats for species must be avoided to the maximum extent possible. WHERE are these habitats – for all species of concern? A reader of the EIS cannot tell.

Any Plan amendments must consider much more protective measures for any intact habitats – rather than gutting the already poor protections, as this EIS would do with its many amendments. It is ridiculous for Idaho Power to be so greedy in context of all that is known in 2011 that it would amend the Green River RMP to allow Gateway to be built within 0.25 miles of sage grouse leks (see DEIS 3.11-52), or to consider such large-scale intrusions into goshawk habitats in the caribou Plan area.

The EIS des not adequately disclose impacts. The Threat determinations greatly underplay the severity of impacts and threat.

This project must be routed to avoid Canada Lynx LAUs and linkage areas. Please develop alternatives that do this in a greatly revised EIS. It is impossible to understand the project impacts on Columbia spotted frog or any aquatic species since adequate and detailed mapping of access roads and other disturbance has not been provided and overlaid. Alteration of hydrology and flow patterns, release of pollutants, increased predators, sedimentation, and many other adverse impacts are highly likely.

It appears segments of a potential route in segment 7 in Cassia County are located near the Jim Sage bighorn sheep population is that the case? What other potential habitats are impacted by any Gateway route? Please examine all the stresses that bighorn sheep populations may be under in the Footprint of the Corridor. This includes disturbance by cattle grazing, and disease issues with domestic sheep.

Sage-grouse. 3.11-64. to 3.11-73. This entire section must be re-done and solid comprehensive baseline information collected and presented so that impacts can be understood.

The EIS repeatedly states that "arid landscapes can take many decades to restore". Disturbed low sagebrush ,black sagebrush Wyoming big sagebrush, juniper communities and many other areas can

take hundreds of years to restore. Citations for the tremendous amount of time that disturbance, even under the best of circumstances, will persist must be provided. See Knick and Connelly (2009).

Idaho Power has offered only 6 EPMs, and these are greatly inadequate to "help avoid, minimize, and mitigate direct, indirect impacts on GSG" as the proponent claims they are supposed to do. These EPMs look like something from the 1950s.

Outrageously, Idaho Power proposes to survey only "all gsg leks determined to be within one mile of the centerline of the project". This must be increased to within 5 to 10 miles of the line or any access route.

There is zero winter or other habitat avoidance here.

There should be no activity allowed within five miles of ANY lek in ANY habitat. Surface disturbance must be prohibited within 5 miles of occupied leks.

Idaho Power even gets out of any lek protections if "agriculture, a highway, or line of sight barrier is present. This is unacceptable. "Agriculture" could be a narrow dryland wheat field. What exactly is a "highway" - a minor paved road? "Line of sight" does not affect sound, blasting, helicopter use and other disturbance It is impossible to understand how any of this would be applied, as necessary current surveys have not been conducted. Plus the nuts and bolts of all the disturbances that would occur in project construction and operation have not been provided.

Why have agencies only applied precautions to sage-grouse pre-construction surveys? These should be applied to all migratory birds and raptors, and sensitive mammal species, too

Nevada lek areas must be avoided for a much longer period.

Necessary site-specific studies must occur over all potential routes to determine any potential winter habitat, and it must be avoided. How is "winter concentration area" described? How might this vary from year to year depending on snow depth?

ALL project activity must be prohibited during migratory bird nesting season. There is no consideration whatsoever for migratory birds, including many rare and sensitive species like loggerhead shrike, brewer's sparrow, sage sparrow, and many others. This should extend from March 1 through July 1, at a minimum and longer in higher elevation areas.
There is a great disparity in MFP-RMP and Forest Plan ages and thus of consideration of ACEC or other protections for special, unique or rare areas, especially in sagebrush habitats, in a modern day context. As part of this process, full surveys must be conducted, and areas with exceptional value completely avoided, as well as Land Use Plans amended to provide RMP protections such as ACEC status.

3.11-67. NO crossing of Rock Creek-Tunp can be allowed. It is not sufficient "mitigation" for any part of this project to put some flight diverters on a fence. This has got to be the most meager and measly mitigation ever seen in recent years: If the Kemmerer RMP is amended, fences with a mile will get reflectors and maybe some sagebrush seedlings will be transplanted. Instead of putting reflectors and

still leaving a source of mortality standing, significant reductions in fencing i.e. fence removal - all along the project footprint must be considered. But first a solid baseline of the fence density and impacts across the Footprint must be provided. This has not been.

Indirect impacts to GSG are descried as increased disturbance and poaching along the ROW "due to an increase in human activity created by new access roads". How many miles of new roads would be needed under all alternatives, and where would they be located? How about road upgrades?

Plus the line would increase predation and level of predatory harassment. The EIS describes raven problems – it is our direct observation that livestock grazing activities significantly increase raven presence – especially during nesting season. Example: Jarbidge BLM where extensive supplement feeding is permitted by BLM, and ravens lured to supplements. Dead livestock, afterbirth and other carrion across grazed BLM and Forest land provide abundant food, as well. We have also observed ravens flipping over cattle manure to eat insects underneath. Reduction in grass heights and simplification of sagebrush structure from livestock breaking or eating shrubs also decreases protective cover and makes more vulnerable to predation of al types. So all components of livestock use negatively impact sage-grouse, and are part of the serious direct, indirect and adverse impacts that must be considered. Significant mitigation of all of these effects – not just sticking shiny objects on fences must be undertaken.

New or increased accessed routes would also increase easy livestock movement corridors – resulting in extending intensive disturbances.

Why does the EIS not include the March 2010 Federal Register Warranted But Precluded consideration of tall structures, road disturbance and many other adverse impacts, as well as all the discussion in many of the chapters in the Knick and Connelly 2009 *Studies in Avian Biology*?

3.11-71 states that compensatory mitigation cannot be developed until a quantitative assessment of potential impacts has been finalized., because the magnitude of direct and indirect impacts needs to be disclosed. Well, there is a tremendous amount of multi-year work that must be done before this can happen. Removal of fences and retirement of grazing must be considered. Full and detailed analysis of the environmental effects and effectiveness of any "mitigation" must be provided. The **quality** of the habitat altered, lost, or destroyed must be fully considered.

The EIS has no basis for its claim that after a hodgepodge of mitigation, the project would be "not likely to contribute to a trend toward federal listing or loss of viability for GSG". Several of the potential routes in Wyoming and Idaho and by Nevada would pierce and permanently alter and degrade significant less disturbed habitats.

For raptors, there is one Map with Nevada info. This is Appendix E, Map 10-6 where the map depicts one raptor nest and/or roost in Nevada - a golden eagle. Since there have not been major mines or energy development here, how extensive have any previous surveys been? It is ridiculous for Idaho Power to have us believe that there is only one known raptor nesting location in this wild land area.

Plus, there is habitat for avian species of significant concern – including pinyon jay, black-throated gray warbler, Virginia's warbler, juniper titmouse, and other migratory songbirds that may inhabit sagebrush and pinyon-juniper systems.

Review of the greatly inadequate Appendix 1 – Land Use Plan Seasonal Stipulations has no Utah or Nevada information.

Information in this Table area hodgepodge of often widely varying dates. Waivers are often allowed. Idaho Power is obviously planning to seek an endless series of exceptions.

Page 2 lists the Wells RMP antelope winter range – but has nothing. No Utah RMP Is mentioned

Key Observation Points. Each sage-grouse lek, wintering area, or other important use areas must be KOPs. Any roadless or significant intact habitat must be provided.

The visibility of the metal uprights and line will change greatly during different times of day. In morning and/or evening, when light is hitting it at a low angle, highly visible bright reflections may occur that result in high visual disturbance several miles from the line. We have observed this repeatedly with transmission lines, such as the existing line to the east of Salmon Falls Reservoir.

We note that the photos used for KOP show very significant signs of livestock use and degradation.

Some Examples:

Viewpoint C8 shows heavy to severe use of herbaceous vegetation in lower left photo, and cow manure clearly visible as well. E3=31 C63 shows signs of extensive degradation of understories – with weeds both along dirt track as well as extending outward into the sagebrush community (cheatgrass, some halogeton). This highlights how the EIS woefully fails to adequately consider and categorize the ecological condition and health of existing understories, the vulnerability of less disturbed sites to weed proliferation, the harms caused by chronic livestock grazing disturbance, and the difficulties any rehab will face – especially of grazing is continued in pastures traversed by this line. If one looks at photo E-3-36 - one sees that the illustration of powerline visual effects include large round bare disturbed areas at the base of each transmission tower unit, along with a linear path of disturbance. These areas will be highly vulnerable to weed invasion – and livestock will promote proliferation into surrounding areas. Plus, livestock will concentrate by, rub on, wallow by, and otherwise continue to disturb lands by any posts or tower legs – amplifying weed problems, through disturbance and deposition of wed-promoting manure. This will all increase the risk of flammable weeds, and use of harmful herbicides.

The serious adverse effects of existing impacts and desertification caused by livestock grazing disturbance, including continued chronic disturbance over the life of the line, must be analyzed and mitigated.

We are also alarmed at the undeveloped wild landscapes this mammoth line would impact – Here are a few examples – but the same concerns apply to the rest of the photos, as well: Figure E 3.19-Sublette Cutoff. The sagebrush landscape in the Tunp range appears to provide a continuous block of

unfragmented habitat in the center and eastern part of the photo. However, the stream in the photo shows many signs of livestock degradation – including sparse willows, unvegetated cut banks, and many other problems. E 3-23 shows what appears to be very important less fragmented habitat.

C40 shows hugely intrusive visually disruptive transmission structures. What a hideous eyesore!

Photos 3-27, 3-29 show intact habitats.

These are just an example of some of our many concerns. Full analysis of adverse visual effects of roads and structures from all leks and important habitats must be undertaken.

Inadequacies in All Parts of the EIS

We just can't believe how poor and incomplete the information in the EIS is. For example, a viewer seeking to understand vegetation communities is provided with a single map – "GAP Habitat" which only shows "shrublands" – lumping ALL sagebrush together, and forests/woodlands – lumping all trees together. There is no indication of how much has burned, the presence of cheatgrass in understories or completely dominating the landscape. As "cheatgrass "grasslands" are apparently mapped the same as crested wheatgrass areas, or others. Mountain big sagebrush is different from low sagebrush from Wyoming big sage, from salt desert shrub, etc.

We stress that this is also very important in understanding the risk of rapid project-caused or other wildfire spread. It has become increasingly clear that the mix of crested wheatgass with cheatgrass in severely grazed interspaces promotes extremely rapid fire spread. For example, in 2010 in the northern Jarbidge, in the area of portions of the Proposed Route segment 9 and alternate, the Long Butte fire burned across nearly 300,000 acres mostly in the course of two days – and 90% or more of the area was crested wheatgrass and various seedings on top of seedings – at times with abundant cheatgrass. BLM refuses to remove crested wheatgrass, as it is used by range staff to claim limited use by livestock. It is largely unpalatable so livestock eat the small native Poa and other grasses, and severely degrade interspaces resulting in blankets of cheatgrass between coarse tall grass. This sets up a disastrous wildfire scenario.

Why Are Gateway Wildlife and Wild Land Being Treated So Shoddily by Idaho Power?

We understand that lek surveys and other more detailed biological studies are being conducted for the Hemingway to Boardman line – but not Gateway. This Gateway Project relies on such meager data a DEIS should never have yet been released.

Important Bird Areas

The consideration of biological information is so poor that the Important Bird Areas of the South Hills and the important Ferruginous hawk areas and their surroundings are not even shown. NO lines or any other Gateway Project disturbance should be allowed in any IBAs. Alt 71, 7 JA and 7H all would have serious adverse impacts on recognized or other important habitats. None of these should be considered further, and should not have been allowed by BLM to be considered as alternatives in the first place.

Springs, Seeps, All Intermittent and Perennial Waters Not Adequately Examined

The EIS is greatly deficient in providing detailed information the location and current condition of all springs, seeps and other waters impacted by any part of the Gateway project. These are critical for migratory birds, sage-grouse brood rating, and many other wildlife needs, as well as highly valued by recreationalists.

Yet many have been severely degraded by livestock grazing, de-watering/reduced flows due to harmful "development" for livestock, and many other purposes. In addition, roading almost always accompanies development, and adds to impacts. Now we are faced with Idaho Power considering a series of southern routes in wild lands where any additional stresses to waters will very significantly add to stress on systems.

At times agencies have built band-aid exclosures – leaving any unfenced wet area as a sacrificed to extreme levels of livestock use,

Adverse Impacts of Various Seedings, Sage-Juniper Killing "Treatments", Failures of Fire Rehab Must Be assessed

Federal agencies have spent vast sums of taxpayer dollars destroying woody vegetation to produce livestock forage, or to "treat" it often under false claims that fire risk might be reduced. All such areas must be identified.Large wildfires have burned vast areas of the sagebrush and pinyon-juniper landscapes.

Exotic forage grasses and the weedy forage kochia have been seeded in many areas – with adverse impacts to sage-grouse, migratory birds and many other wildlife. All of this disturbance must be mapped, analyzed, and impacts assessed as part of the baseline of this process. It is necessary to understand the relative scarcity of high quality native habitats, difficulties of rehab in any grazed landscape, and to understand how altered and fragmented many areas area. It is also necessary to highlight differences among alternatives.

It is also necessary to understand how often greatly overstocked lands were. AUMs in many of the older LUPS - and even continuing to this day – were based.

Grazing Information Must Be Provided

All current and adequate rangeland health information for all affected lands must be provided. All permitted use, all actual use over the past 20 years, and summaries of monitoring information on uplands and riparian areas must be provided across the all pastures and allotments in the Footprint of the project. This is necessary to understand the baseline, as well as to understand if efforts at rehab may attempt to shift or intensify livestock use in other less used areas of allotments –an action that we strongly oppose. AUM reductions must occur as livestock are pulled back and excluded from pastures crossed by Gateway.

We note that we are increasingly finding that ranchers are unable to graze a significant portion of their AUMs without inflicting very significant damage – so often "actual use" is well below the number of parties allowed on paper.

All CRP land must be mapped, and impacts of any "emergency" or other grazing or disturbance must be provided. What is the overlay of CRP and Gateway Alternatives? One of the reasons the FWS claimed that Listing of sharp-tailed grouse was not required was because of CRP. New and increasing transmission line and other disturbances to such habitats must be understood, so that an accurate understanding of just how "secure" CRP may be can be obtained.

We are also concerned that increasingly various speculators, hobby ranchers and mining, oil and gas or other industry actually owns base properties, and grazing is sub-leased. Instead of trying to mitigate harmful effects of development activities by retiring grazing, energy and other developers control public lands permits and allow large-scale grazing disturbance to continue.

If Gateway Carves A New Corridor – Other Lines Will Follow

The full adverse impacts of Gateway setting a precedent for new harmful routes to be followed by other transmission or oil and gas or even water export lines must be examined in consideration of the segments proposed route, and many of the very harmful alternative routes.

All Transmission, Roading, Fencing, Water Developments, Veg Conditions, Etc. Must Be Overlaid

Detailed overlaying of information is necessary to understand the landscape and environmental context – and severity of impacts – of any route segment.
Much of the mapping does not have much of the existing infrastructure shown – so the degree of fragmentation and development cannot be understood.

Slickspot Peppergrass and other Rare Plants and Other Concerns

Portions of the route north of the Snake River would affect slickspot peppergrass. Since access route and new and expanded roading maps have not been provided, it is impossible to understand the degree and severity of impacts – which are likely to be very significant. New and expanded weeds, increased wildfire risk, and many other threats and adverse impacts are likely.

Construction f the line and roading will result in additional altered hydrology, small depressions, ruts – and puddles. Puddles that collect water increase livestock concentration and adverse impacts – especially the very harmful trampling impacts. Detailed plans must be provided, and the full degree of impacts examined. We note that altered hydrological processes will also create additional sites for West Nile virus, especially when combined with cattle troughs, stock ponds, and other West Nile mosquito breeding areas. Both the baseline and expanded impacts and threats to migratory birds, sage-grouse, and recreational users must be examined here.

Some Additional Route Comments

The mapping of routes is cluttered and difficult to understand. On Maps such as E.2.4, it is impossible to understand where existing transmission lines run. These must be overlaid. In several of the maps, it is impossible to understand where the WWEC runs.

Portions of the Proposed Route in Wyoming come much to close to VRM II and I areas, and strongly conflicts with those designations. We also stress that the reason there are VRM II areas is that modern land use plans are in place- in contrast to the tear it all up VRM categories common under older RMPs and MFPs. As part of this analysis, for all potential routes – a modern day consideration of VRM must occur, and any RMP amendments undertaken must upgraded VRM protections to VRM II or I for all intact native vegetation habitats and important wild land areas.

Mapping appears to show the Westwide Energy Corridor. WHY can't Gateway follow this, existing torn up areas and power/energy lines, and the interstate? There is no alternative that effectively does this, and it must be considered.

There have not been sufficient alternative routes that follow existing lines considered. Two Gateway lines can parallel each other - separated by a certain "safe" distance, including building a second line if a second line is actually needed) that parallels the energized existing line, and two parallel lines otherwise follows the disturbed lands and other developed areas. It appears that the claim that in a certain part, two lines are needed is really about opening up a huge swath of sensitive less developed country to all manner of development.

Even using reading glasses, it is hard to distinguish the letters that are associated with parts of routes on mapping. We appreciate the big maps, but more clarity is required.

Deep Creek - 7A is described as: "requested by BLM to examine … alternatives on public and private land that did not impact the Deep Creek Mountains. Yet this route - as shown on mapping – still slices across the Range. This route should be moved further north, and out of the Deep Creek range entirely. It should follow the existing line to the north as much as possible. Gateway must follow existing lines to the north, and stay out of the Deep Creek range and sensitive Sublette and other areas.

To what degree would any new line here open this area up to large-scale industrial wind development? What would the serious adverse impacts on sage-grouse, sharp-tailed grouse, pygmy rabbit, migratory birds be?

We strongly oppose 9E. OHV use is already out of control (despite BLM efforts at "Travel Planning"). Any further south powerline disturbance in the Owyhees will add greatly to the uncontrollable habitat disturbance and alteration. We oppose all segment outing in western Twin Falls County (Jarbidge BLM) and Owyhee County.

It will also have serious adverse impacts to unburned sagebrush and some salt desert shrub habitats, as well as watersheds. There are severe livestock degradation problems as well all along the Owyhee front – and sage-grouse are on the verge of being extirpated over much of this area. The addition of Gateway West will greatly add to the demise of this population. Lands here are also very important habitat for loggerhead shrike, sage sparrow, and many other rare, declining and sensitive species. Thorough systematic baseline inventories for all these rare and sensitive species must be conducted

along alternative routes and the affected blocks of less fragmented habitat that would be chopped apart by this line.

Please review the work by Chris Wood, Dr. Tom Cade and others on the Owyhee Front shrike populations that would be severely impacted by southern Section 9 alternative route segments. Low elevation Wyoming big sagebrush communities here are critical for the loggerhead shrike, a sensitive species, as well as sage sparrow, Brewer's sparrow and others. There is a nationally significant shrike population right in the path of southern segments.

The line will increase wild fire risk. The DEIS is greatly deficient in analyzing impacts to a host of sensitive species. Sage-grouse are not a surrogate for sage sparrow, loggerhead shrike, Mojave collared lizard, and other lower elevation Wyoming big sagebrush species, including those that occur at interfaces with salt desert shrub.

Here too we request that only routes NORTH of the Snake River be considered, with a crossing near Melba to Hemingway. Why can't there be two new parallel lines set up along the path of the existing lines to the north, and no southern route at all? Separate the lines by whatever distance is necessary (please provide a specific distance and describe why separation is necessary)– but co-locate all new lines in the same area as the bulk of existing lines to the maximum extent possible. We fear that the claim that a split and two new routes are needed in places is "cover" for opening up the South Hills, northeastern Nevada, portions of the Jarbidge lands to extensive new development.

Location of All BLM or Forest Leases, Gas Wells, Mine Claims, Etc, Must be Overlaid

Vast areas of the public lands have been leased, or rights of way granted, by BLM (and some by the Forest) for oil, gas, geothermal energy, wind MET towers or sites, communication towers, etc. Where are all leases located along the Footprint of Gateway or any Alternatives? And what foreseeable development might be spawned by Gateway?

Electrical Environment Section

All of the issues raised are of significant concern to the public. This includes voltage build-ups, EMF health effects – low frequency electric and magnetic fields, audible noise, stray voltage, and interference with electronic equipment.

High voltage lines produce a very audible crackling noise, which at times is quite loud. How do different weather conditions, voltage loads, etc. - effect this as well as EMF and other hazards? The EIS downplays this by saying "the air breakdown, or small spark caused by corona t the surface of a transmission line conductor, is accompanied by a snapping sound. If there is sufficient corona activity on a high voltage line … may be sufficient … to produce discernible noise … The use of the word may is not accurate. These lines are always audible and producing noise.

This may interfere with animal communication and behavior in various ways, and is annoying to people. What species given their known hearing and communication systems, may be particularly vulnerable?

3.21-11 describes electric fields associated with lines inducing small electric currents in metallic objects, and possible nuisance shocks –which can occur to electric fences, vehicles, irrigation systems.

"Stray voltage" refers to a phenomenon in wet environments. Recreationists, scientists or others may be near the line under such conditions, in vehicles or hiking on foot. What hazards does this pose – as hikers can't be grounded – and cars can't either. It is difficult to understand what the effects would be from this material.

Both the human health and the animal adverse impacts have not been analyzed. For example, what species have low frequency communication –and how could the lines impact this? While these various effects of concern are described, the EIS is not adequate to determine impacts. Plus, the line is likely to lead to wind energy and other sprawl, and the adverse impacts of wind farm noise, flicker effects and other concerns that may affect human health as well as wildlife – so what will the cumulative impacts of this all be?

Fire Hazards

The fire prevention measures are inadequate. No construction activities (blasting, motorized equipment use) should be allowed during periods of "High" fire danger on public lands. Idaho Power must be responsible for paying for the full costs of any fires linked in any way to this line over its entire period of construction and operation. Lands must be rehabbed with local native ecotypes, and grazing removed until recovery of all components occurs.

Blasting is mentioned here. How much blasting is proposed, and where – for all segments of the line and access roads? Until full and detailed surveys in the noise Footprint of the line are conducted and detailed plans for this line produced, it will be impossible to understand impacts.

Guy Wires

No guy wires should be allowed. They pose a collision risk for bats and avian species, as well as public safety concerns. The EIS describes 4 guy wires each 140 feet long spaced in a square around each tower. 3.22-13. This again highlights the need for detailed study of migratory bird use and movement patterns including migration routes across the footprint of the line.

Cumulative Effects

The entire cumulative effects analysis is greatly flawed. The EIS attempts to use a Table with a list of some projects listed to avoid full and detailed cumulative impacts analysis. It is impossible cumulative effects as there has been no adequate baseline. Now this simplistic approach how SEVERE the effects of the other projects will be, and the full array of threats and vulnerability of the habitats and populations impacted. The Table also omits many harmful activities occurring chronically in the Footprint of the line – like chronic livestock grazing disturbance.

For example, the section on migratory birds and raptors (Section 4.4.11.3) claims that "effects of gateway could occur primarily during construction". Yes, the construction impacts may be severe – but the effects of the line - combined with chronic grazing disturbance, energy disturbances, roading, etc.

will play out over the life of the line. AND the line will be a long-term lethal collision hazard causing death of migratory birds.

The EIS concludes, with no basis that "the Gateway Project would not have a measurable adverse effect on migratory bird populations, habitats ecological conditions and/or significant bird conservation sites". Of course, this conclusion is based on the "Don't Look, Don't Find" pathetic baseline that BLM has somehow allowed Idaho Power to get away with. There is no way any valid conclusion can be drawn until in-depth site-specific surveys for migratory birds, including imperiled species like the loggerhead shrike, and all of their nesting, migration, and less fragmented habitats are examined across the footprint of all potential routes.

The cursory EIS analysis also doe not allow any conclusions whatsoever to be draw for the potential routes where Idaho Power never bothered to collect valid field data.

The Columbian sharp-tailed grouse, sage-grouse and all imperiled species cumulative effects analyses are a joke – and no valid conclusions are drawn.

The EIS is incorrect in saying that Wyoming EO effectively ends new wind development on state and private land in core areas, and it assumes that the EO remains – it has already been weakened under the current Governor of Wyoming. A political stroke of the pen can change all of this – and the Core Plan EO still allows some new development – on top of all the existing developments that have already occurred and the tremendous ecological stresses of continued roading, livestock grazing and other disturbances.

DEIS 4-81 admits the precedent that selection of any wild land route away from existing corridors and disturbed areas would have in converting an area to a monstrous energy line sprawl zone: "If Alt 7H were selected for Gateway West other proposed transmission lines such as Zephyr and the Overland Intertie lines, would likely be built along Gateway's Proposed Route". Well, wouldn't the same apply to the disastrous routes 7I, and 7J by the Nevada border and southern Cassia and Twin Falls Counties?

It also admits that a battery of lines might be located in other areas. Since there is no current baseline provided of the status of habitats and populations, and how ANY of the routes might really impact birds – neither the effect of gateway or any of the sprawl of potential energy development can be understood.

The entire superficial cumulative impacts analysis must be redone – and an adequate and honest analysis occurs.

We cannot help but recall the disastrous impacts to anadromous fish in Idaho of Idaho Power constructing the Hells Canyon dams without proper care for fish passage. Salmon were wiped in the Weiser River and other tributaries. Now in 2011, watersheds. Sage-grouse and other sagebrush wildlife are currently under siege. Solid baseline information must be acquired, best available science applied, and route segments with significant conflicts abandoned. Otherwise, Idaho Power's Gateway Project may be a very significant factor in extirpation of affected grouse and other wildlife populations.

Please contact us if you have any questions about our concerns, or need clarification.

Sincerely,

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Attachments Sent on CD, additional Energy Lit. will be sent spearately

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Katie Fite <katie@westernwatersheds.org>
10/22/2011 08:53 AM

To <gateway_west_wymail@blm.gov>
cc
bcc
Subject Gateway West Comments

Dear BLM,

Attached are Western Watersheds Project comments on the China Mountain wind Project DEIS. Please incorporate all concerns about energy development, cumulative effects, roading, sage-grouse and all other impacts raised here in China Mountain comments into the Gateway DEIS process.

Also, we have not receive any notification that our comments filed yesterday were received.

Does your system do this?

If not – why not? There have been many problems with BLM comments that go into a black hole like this Gateway link in the past.

The Forest Service system replies that comments have been received. Why not BLM?

Thank you,

Katie Fite
Western Watersheds Project
PO Box 2863
Boise, ID 83701

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China Mountain Wind July 19, 2011

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Working to protect and restore Western Watersheds

China Mountain Wind Project and RMP Amendment Comments

July 5, 2011

Scott Barker
BLM Project Manager
Jarbidge Field Office
2536 Kimberley Road
Twin Falls, ID 83301

id_chinamtn_eis@blm.gov

RE: China Mountain Wind Project DEIS and DRMP Amendment

Dear BLM,

Here are comments by Western Watersheds Project on the China Mountain/Browns Bench Wind EIS process.

We emphasize that BLM has thwarted full and informed public comment by failing to provide supporting documents including WEST and other consultant biological reports to the public. BLM has thwarted informed comment by failing to provide FOIA info requested in January until the day before the comment period on the DEIS ends, so that there can be no opportunity for thoughtful review. BLM has refused to extend the comment period, despite requests from many parties, and much of the project area being inaccessible to the public throughout the wet spring weather.

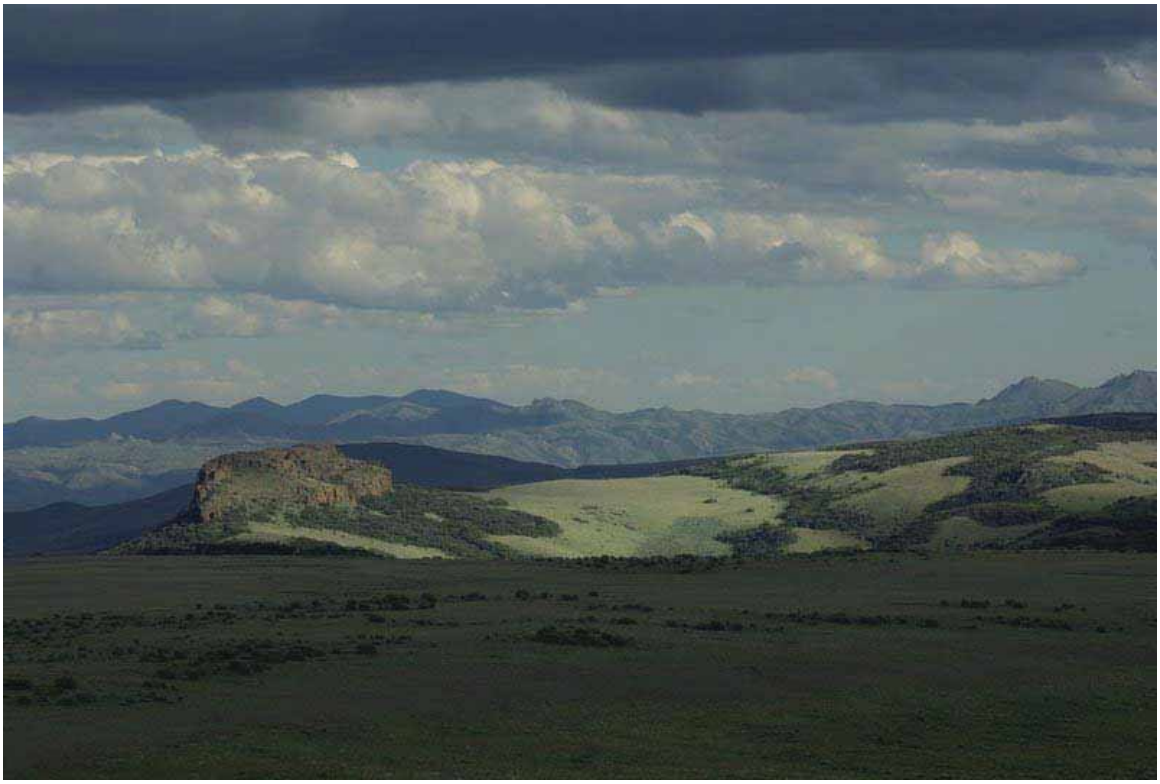
WWP is greatly concerned that BLM is not fully considering the severity of the adverse effects of imposing massive industrial disturbance on the fragile Browns Bench-China Mountain landscape. BLM appears instead to be plunging ahead with destruction of this critical habitat and beautiful wild land area.

The cumulative adverse effects of industrial wind farms and other energy disturbances on wildlife across the American West have become increasingly well known. Sagebrush-dependent species including sage-grouse, a myriad of migratory birds, the iconic golden eagle, rare bats and other wildlife will all be greatly impacted by the ill-sited China Mountain industrial wind project.

As BLM is well aware, the sage-grouse population across the Jarbidge is imperiled right now. Sage-grouse and many other native wildlife have been extirpated, or are on the verge of blinking out, in much of the northern and central Jarbidge region already. BLM's own small mammal surveys show this. Habitat has been woefully lost and fragmented by tremendous industrialization of the area for livestock, large-scale seeding of exotic livestock forage grasses, imposition of very large herds of cattle and sheep that

have simplified and altered vegetation communities and caused extensive cheatgrass spread in understories, and large-scale wildfires. Large-scale fires have repeatedly swept the seeded, overstocked lands – and these fires are increasingly fueled by cheatgrass that invades the disturbed trampled soils, and hotter, drier, simplified sites promoted by intensive grazing. Please see Attached WWP Long Butte Fire Appeal, describing the broken and failed seeding and post-fire grazing policies. Vast acreages where the public has been promised by BLM that habitat would be recovered remain biological wastelands.

China Mountain is of exceptional quality, and has regional significance for sagebrush species conservation. It represents the only remaining relatively intact habitat of any size in the Jarbidge region. It is a unique and scenically beautiful area, with very high recreational value as well – for hiking, camping, sightseeing, photography, wildlife viewing and many other outdoor and aesthetic pursuits enjoyed by our members. The BLM fails to adequately present the unique biological, aesthetic and cultural values of this landscape. These values are regionally and even nationally significant. Scenic rhyolite outcroppings and canyons cut the face of a high, rugged mountainous tableland on the eastern edge of the Jarbidge mountains. It is characterized by a great diversity of plant communities – mountain mahogany, aspen, mountain big sagebrush, low sagebrush, springs, seeps and wet meadows. There are sweeping views of Nevada mountain ranges.



As we have discussed in many comments expressing great concern since the first MET towers were erected, the protection of the beautiful China Mountain landscape is imperative for protection of wildlife in the region, as well as having great value for public lands recreation.

Landscape blighted with Met tower:

We strongly oppose this proposal. BLM must adopt the No Action alternative. Any of the alternatives proposed violate BLM's Sage-grouse Conservation Plan, and would propel sage-grouse to ESA listing. BLM must at the same time require the immediate removal of the existing MET towers and restoration of damaged lands and revoke any ROWs. It must also use this process to designate an ACEC for protection of sage-grouse, scenic values, and cultural sites across Browns Bench and the China Mountain area. This

must place the site off-limits to industrial wind, which is certain to cause irreversible harm to this unique landscape.

A Battery of Impacts --- Impossible to Mitigate

This industrial facility would greatly fragment and block sage-grouse movement patterns across the landscape. This site is critical for connectivity between sage-grouse populations, and the viability of sage-grouse in the Jarbidge region, as well as Shoshone Basin and O'Neill Basin. It is a regional Crossroads for sage-grouse, and a vital link between populations.

This project would also be located in a very important and diverse site for migrating birds. It would also dissect and fragment habitat for a broad range of native wildlife over a very large land area, including a now thriving elk popualtion. We are deeply concerned that RES has not considered alternative siting, as the full impacts of an industrial wind project in this site are **impossible to mitigate**. The Mitigation Plan is woefully inadequate. There is no comparable area where lands or easements can be acquired. The degree of destruction to the environment in siting an industrial wind project here will be comparable to large-scale mining destruction to the land.

There is growing national and international concern about the impacts of wind facilities. All available guidance, including that of the wind energy industry, stresses the importance of selecting sites that minimize environmental harms. RES has, unfortunately, ignored this from the start. But a pliant BLM has repeatedly caved to pressures, and let industry intrude into this critical area.

BLM has failed to adequately take into consideration the even more dire status of sage-grouse, pygmy rabbit and other important and other sensitive species in the region since the recent large-scale wildfires – including the Scott Fire and the rest of the Murphy Complex and other large Idaho and Nevada fires. Plus, sage-grouse and other sensitive sagebrush species are even more imperiled now across their range since nearly unfettered Oil, Gas and other energy development has devastated - and continues full-bore - across so much of Wyoming, portions of Utah and Montana, and other areas as well. Ignoring all of this, BLM allowed the developer to place three more intrusive MET towers in key sage-grouse habitat in 2008, right after the Murphy Complex fires, and misled the public about presence of sagebrush at two of the sites.

BLM is under tremendous pressure to approve this project. We ask for anonymous review by scientific experts removed from political pressures. We request vetting of conclusions by an anonymous team of agency biologists with expertise in sagebrush ecosystems. BLM has unlawfully segmented the analysis of the project in allowing incremental placement of MET towers. This has altered and destroyed the legitimacy of baseline wildlife habitat and population monitoring. Perhaps that was the goal --- to alter habitats so that fewer grouse and other species would be found so that they would be less of an impediment to the developer as this EIS was prepared.

BLM has tainted sound baseline data collection on wind farm development impacts by allowing the construction of MET towers, and even misleading the public about the presence of sagebrush vegetation and habitat at tower sites. Giant MET towers have been incrementally placed in low sagebrush habitats much used by grouse before necessary baseline studies on sage grouse, raptor populations, migratory songbirds use and migration, bats and other special status species occurred. So BLM destroyed any chance of establishing a legitimate baseline, especially for sage-grouse biological information, if it later grants the right-of-way for this gargantuan wind facility.

Placement of MET towers has already caused avoidance of the site by wildlife like sage grouse –a species that avoids use of areas with tall vertical structures (Braun 1998, Manes 2002, USFWS March 2010

Warranted but Precluded Finding for GSG, Knick and Connelly 2009 *Studies in Avian Biology*). Behavioral avoidance will skew results of any new research or data collection. There have likely already been considerable avian mortalities from collisions – as RES never even bothered to place avian flight diverters on some tower mooring wires – despite this long being known to be a measure that might limit some collisions. The wires are nearly invisible under dim light collisions. The Nevada MET tower, as well as multiple towers on BLM lands in Idaho lack avian flight diverter markers for visibility.

BLM must reject this application and call a halt to this process. The 2010 mapping of core sage-grouse habitats by Doherty et al. 2010, and continuing IDFG studies, and now studies of radio-collared Nevada birds from Browns Bench, all show the critical importance of leaving the entire Browns Bench-China Mountain area untrammeled by industrial development and the battery of human disturbances associated with industrial wind.

Sage-grouse numbers have continued to decline, yet BLM has refused to require that MET towers be removed as a consequence. In allowing the process to continue, BLM is failing to comply with FLPMA, and balance uses of the public lands. The Interior Secretary has an affirmative duty to protect areas and resources of national interest, and BLM now must do so and put an end to this wind boondoggle project before further harm is done.

The project proposal must be modified to bring it into conformance with existing law, regulations and policy including recent Instruction Memos (IMs), and with the existing BLM land use plans.

BLM's Feb. 2011 IM states:
These land use plan decisions protect important resource values and resource uses and were developed through an extensive public process. Through tiering and incorporation by reference (40 CFR 1502.20 and 1502.21) the environmental review document can apply these prior resource analyses to the evaluation of alternatives for the right-of-way application and provide a basis for deciding which alternatives warrant detailed study.

BLM ignores evaluation of the relative scarcity of the wildlife habitats and populations, recreational importance, scenic beauty, wild and little-trammeled lands, irreplaceable natural values and other important attributes of this unique site. The area has recommended as an ACEC by conservation groups in the Jarbidge RMP process, and would be designated an ACEC under the Preferred Alternative.

BLM must truncate this project now - due to the very significant and irreversible impacts the project will have on sage grouse habitats and populations, especially promoting population isolation, and likely over time leading to extirpation of the affected population as this project would dominate the entire landscape. It will cause loss of critical wintering habitat for birds from a broader region.

Instead, in defiance of all science and reason, BLM's DEIS actually proposes stripping vital land use plan protections from the Jarbidge RMP and leaves the door wide open to ignoring protections in the Wells RMP. The China Mountain DEIS makes a mockery of BLM's own recent IM discussion of land use plan protections.

It is clear that no alternative that would site an industrial wind development at China Mountain warrants any further review.

In relation to "renewable" energy projects, BLM's Feb. 2011 IM states:

If a proposal does not avoid areas where development would cause significant impacts to sensitive resources and values that are the basis for special designations or

Of course, irreplaceable sensitive resources at China Mountain run the gamut from elk wintering habitat to regionally significant golden eagle habitat.

And exceedingly rich migratory songbird habitat, as well, due to the great diversity and complex interspersion of habitat features.

In the case of this EIS, only the No Action Alternative would not destroy sensitive resources and values and gut Land Use Plan protections. Plus, damage has already been done by the MET towers, with cheatgrass and tumblemustard now invading dynamited rocks where towers are moored; tower pieces are falling off; and on some towers the developer couldn't even be bothered to place markers on mooring wires so birds could see them and avoid being killed. Wires are lethal to birds or bats that may collide with them, and markers are supposed to be placed on wires to help reduce this risk. This has long been an established industry BMP.

BLM must adopt a modified No Action Alternative along with: 1) Denying the wind proposal and requiring immediate removal of MET towers along with proper mitigation actions to try to stave the damage already done - including disruption of sage-grouse and other species habitual use areas and vital connecting habitat, and to stop permanent damage to old growth low and other sagebrush communities, permanent destruction to rock formations, and much other damage. Bare dirt and dislodged rock heaps with cheatgrass, tumblemustard and other weed invasion are being caused by Met towers and increased road use already; 2) Instead of stripping RMP protections, BLM must amend the existing RMPs in both states to place the lands off-limits to wind or other development. Information on the irreplaceable relevant and important values of this wild natural landscape has already been amassed as part of the new JRMP process, as well as in the info provided for sage-grouse in this DEIS.

If BLM remains hellbent on pursuing this reckless renewable energy project, which is certain to push sage-grouse towards ESA listing and elevate its Listing priority, then a Supplemental EIS must be prepared. But in the interim, the MET towers and other disturbance must be removed so that additional harm is not done to sage-grouse, migratory birds, and public wild lands – and animal use of the area can be studied without these tall intrusive structures so a valid biological baseline can be established.

In recent visits, we have found roads being increasingly driven into low sagebrush country. The project will impose a massive new road and wildlife mortality footprint.

Two gopher snakes, one dead with head crushed, Monument Springs road.

Dead white-tailed jackrabbit on Browns Bench road. Vehicle mortality alone from 80 miles of new and "improved" roads will be a severe impact to wildlife. Human disturbance in the area has increased significantly already from the "hype" over the wind project and elevated OHV interest.

We have also found remains of a dead migratory bird in the immediate area of a tower on BLM lands in Nevada with unmarked wires – the only such passerine remains observed in a three day outing. Who knows how many birds have already been killed in collisions with wires?

The IM states:

Projects that would require major land use plan revisions should be avoided.

It is a major land use plan revision to strip long-standing sage-grouse, visual, and riparian protections of the Jarbidge RMP, and to bend the Wells RMP, to accommodate an industrial wind developer.

The IM states:

Although the BLM may accept a solar or wind energy development right-of-way application, it retains the discretion to prioritize the processing of such applications.

Unfortunately, BLM appears to be fast-tracking China Mountain, and idling its new RMP. BLM is using its discretion to promote and elevate destruction of sage-grouse core habitats and an irreplaceable public wild land area.

The IM continues:

The screening and prioritization process provides an opportunity to direct development away from lands with high conflict or sensitive resource values and towards low conflict areas such as previously disturbed sites, areas adjacent to previously disturbed or developed sites, and locations that minimize construction of new roads and/or transmission lines. Applications in high conflict areas will be more difficult to process and require a greater level of consultation, analysis, and mitigation to resolve issues or may not be feasible to authorize. Such applications may be given a lower priority for action. Applications with fewer resource conflicts are anticipated to be easier and thus less costly and time-consuming for BLM to process. Projects that avoid impacts to specially designated areas will be given a higher priority for processing. However, it should be noted that an application that may have initially been identified as a

project in a low conflict area, may later through additional surveys and data collection be determined to be in an area with greater resource conflict issues. ***These project applications could later be determined to be a lower priority for processing.***

But instead of working to move the project to degraded lands closer to existing infrastructure, or considering an alternative siting the facility only on private lands of powerful local ranchers who are clamoring for it to be built so they can become richer, BLM analyzed a confusion of very similar alternatives.

DEIS Figure 1-2 shows that there really is very limited Outstanding and Excellent wind here. How does this categorization relate to constancy of wind – rather than high speeds punctuated by relative calm – as WWP has observed during site visits? But more importantly – since nearly 2/3 of the area has only "marginal" or "fair" wind – why in the world can't this project be moved somewhere else?

****

The proposed facility includes towers that will be visible over vast distances both day and night. With lurid night lights, the wind facility will be visible for likely 50 miles or more in the scenic high desert of the Idaho-Nevada borderlands region. These lights will represent a significant disturbance to humans seeking tranquil wild lands experiences and darkness of night skies while camping on public lands. Lighting is likely to cause significantly increased mortality to volant species, as well. The positioning of bright elevated flashing lights on this high tableland will be visible in every direction. For example, a viewer in the Jarbidge foothills near the Forest Service boundary on the road to the Pole Creek Ranger station can readily see the bright lights of Mountain Home Air Force Base. And those lights don't even erratically flash! It is also highly likely that these lights would lure in migrating birds and bats from over considerable distances. These animals will then be massacred by turbines, wires, and other industrial wind components.

It is now well known from studies conducted on bird and bat collisions with tall communication and other towers that large-scale death events occur during periods of inclement or cloudy weather when migrants appear attracted to the light glow. See http://www.abcbirds.org/abcprograms/policy/collisions/towers.html USFWS estimates already that there may 50 million collisions.

The consultant biological studies appear to go out of their way to avoid conducting necessary in-depth night-time radar studies on migrating birds and bats aimed at detecting migratory species use, especially throughout spring migration periods and throughout late summer when many migratory birds like Brewer's sparrow may be moving across the landscape. WWP has observed many migrants such as tanagers and orioles "downed" resting and foraging in the project site during spring migration periods. Spring wind patterns, in particular, bring migrants up from the south – especially along the eastern face of this tableland area that is the eastern edge of the mountainous Jarbidge region. Lush and diverse small canyons cut the eastern face of the Tableland, providing a variety of riparian and other habitats for migrants to rest and refuel. It is also likely that portions of the Project area are used by migrants to disperse eastward along the Jarbidge foothills region –while mountainous areas are still cloaked in snow.

The project will result in directly or indirectly destroying and/or substantially altering the landscape across **hundreds of thousands of acres**, once all the actual construction sites, gravel sites, plus both new and drastically "improved" roads (80 miles) and drastic changes to the 90 mile Bruneau Desert route and large areas bordering the Rogerson-Murphy Hot Springs road, a new 19 mile transmission line, and other development and disturbance occurs. There would be broad zones of noise, permanently increased road use, increased human disturbance year-round across zones of impact from the vastly altered road Footprint, networks of above and below ground powerlines, depletion of groundwater and reductions in

spring flows, winter snowplowing on apparently all roads, and many other human disturbances intruding into wildlife habitat and a beautiful area of public wild lands. It is absurd for agencies to be looking at supposed “mitigation” based merely on acres bulldozed.

Due to the relative lack of livestock developments and seedings/treatments because of the rocky and rugged terrain – portions of the native vegetation communities here are in relatively better condition than the rest of the Jarbidge, and nearly all other Wells BLM lands as well. The intensive industrialization of the land for livestock has not occurred to the same degree here to date. But development of industrial wind will change all that – very likely facilitating increased livestock use of previously less grazed areas that provide a refuge of better condition habitat for native species.

Species such as cheatgrass and bur buttercup are already spreading rapidly in zones of livestock disturbance as well as disturbed areas by roads and livestock infrastructure. There is already significantly increased use of roading due to the interest generated by the wind farm, developer activity, and the developer promoting the site to OHV interests. So the threat of weed expansion has increased. Plus RES’s MET tower disturbance to soils and dynamiting of bedrock to moor MET towers has already caused weeds like cheatgrass and tumblemustard to newly invade some sites.

Large areas of the Scott-Murphy fires are becoming increasingly infested with cheatgrass, a result at least in part due to BLM re-imposing livestock grazing disturbance with only a brief and inadequate period (1-3 years) of rest. There has not been sufficient recovery of soils, microbiotic crusts, and native vegetation understory components, and native shrubs. Sagebrush is a keystone/foundation species that anchors plant communities, and moderates conditions. See Prevey et al. 2009. Now with this Project, BLM would also impose a massive new road, turbine and other disturbances across tens of thousands of acres burned in the Murphy blaze – further amplifying weed invasion risk and site dominance.

Many areas burned in the Murphy Complex were seeded with sagebrush – with only limited success. Thus, promises made to the public about restoration/recovery of habitat have not been realized. This means that the regional Baseline and sagebrush deficit and recovery prospects for sagebrush habitat are even worse than was anticipated when Scoping for the wind farm was conducted.

Jarbidge BLM has inexcusably delayed finalizing a new RMP, getting side-tracked on the China Mountain development. The wind developer is trying to get the China Mountain EIS to the finish line before the long-delayed RMP. The RMP is required under a Settlement Agreement to emphasize sage-grouse. This stalled RMP has greatly delayed any comprehensive and integrated planning for needed restoration and recovery of already greatly fragmented Jarbidge habitats. The diversion of time and energy on the China Mountain project has already caused significant harm in lost time and effort in finalizing a new RMP with comprehensive planning and on-the-ground action for protection and restoration of sagebrush habitats in the Jarbidge. The harm caused by this delay must be fully examined in the EIS, and mitigation provided.

Jarbidge BLM is taking the dead opposite path from that laid out in the recent Feb. 2011 IM, and that had been agreed to in a settlement with WWP for a new RMP emphasizing sage-grouse protections. BLM is expediting the China Mountain Wind Project – which has a welter of conflicts and controversy while delaying the Jarbidge RMP completion. This is in violation of the settlement agreement in WWP v. Dyer, where BLM was expected to have long ago completed a new RMP, giving priority to sage-grouse. Instead BLM expedited this industrial wind process that would destroy the most significant remaining sage-grouse habitat and lead to likely future extirpation of sage-grouse in the entire Jarbidge region.

The BLM’s own Preferred Alternative in the Draft Jarbidge RMP EIS would place the proposed project site off-limits to industrial wind destruction. Finalization of the China Mountain Wind EIS prior to the

RMP would illegally thwart a full and fair outcome of the RMP NEPA process. The developer is well aware of this. In fact, it has been reported that the developer was urging OHV users and others to seek an extension of time for public comment on the RMP DEIS. This would be to drag out that process further so RES China Mountain Wind could beat out finalization of protections in the new RMP.

Unburned areas in the Browns Bench-China Mountain landscape comprise the most significant remaining block of habitat left in the Jarbidge and neighboring BLM lands. Sagebrush sites with MET towers now interfering with wildlife use now are of even greater importance to sage-grouse and other native species since the large fires. This EIS must require removal of the MET towers immediately - before more unnecessary disturbance, OHV use/curiosity seekers, vegetation crushing, wind developer plane and helicopter disturbance, etc. occurs in association with the wind farm. There has been no analysis of the adverse impacts of intrusion on the site over all periods of the year that is linked to the Wind Project advance work. How may this have affected raptor, migratory bird, sage-grouse, big game and other wildlife use of the area?

Threats in the Project Footprint Already Abound

The adverse impacts of chronic ongoing livestock grazing disturbance, inappropriate seasons/periods of use, and stocking levels, excessive use standards applied, lax BLM monitoring, and burgeoning OHV use, must all be examined. All of this is already disturbing wildlife, watersheds and ecological processes, and promoting introduction and spread of invasive species across the area.

BLM must examine the full adverse footprint of all existing fences, stock ponds, pipelines and troughs, supplement feeding sites, and other grazing disturbance across the BLM, private and state lands in the Project Footprint.

And just what is the Project Footprint? While the DEIS does lay out a considerable disturbance Footprint for sage-grouse (a four mile buffer around the project area), for all other wildlife as well as other values of the public land, the project footprint is poorly defined. Plus for sage-grouse, as well as many other values, the cumulative impacts analysis area is much too small, and appears arbitrarily drawn.

The EIS must thoroughly analyze the very significant impacts of the existing network of roads in their current condition, of new or much more driven-in roading that has sprung up since the first MET towers were placed - including impacts of crushing, and bulldozing of old growth low sagebrush in association with the towers, and overturning of beautifully weathered and often lichen-covered rocks and large boulders – thus exposing visually intrusive unnatural pale and white mineralized surfaces that mar the visual landscape and promoting weed infestation sites.

The Footprint of the Project would be immense. It would extend across much of the region – and potentially beyond as the turbine blades kill migrating volant species, leading to declines in bird and bat populations in the intermountain West. The project will have significant effects on public recreational use, and wildlife use of large areas extending out from the turbines themselves. BLM's EIS admits a four mile dead zone for sage-grouse – but with all the other elements of the environment, the true environmental Footprint of the project is not examined.

If a significant portion of a migratory bird species population that nests in a particular area to the north, or uses maternity caves to the north, is killed by turbines, powerlines, or other development here – there will be impacts felt in other ecosystems. The Project Footprint will ripple across a vast region.

DEIS CONCERNS

BLM and the Developer Have Long Ignored Long-Standing FWS Interim Guidance and Sound Biology on Wind Test Monitoring and Development Impacts

Due to tremendous public concern about industrial wind facility impacts to wildlife already emerging in the early 2000s, FWS developed guidance and a process to better minimize impacts to wildlife, as well as to identify sites where placement of wind facilities would lessen harm to wildlife. In its May 13, 2003, "Service Interim Guidance on Avoiding and Minimizing Wildlife Impacts from Wind Turbines", FWS stated:

Wind energy facilities can adversely impact wildlife, especially birds and bats, and their habitats.

…The cumulative effects of this rapidly growing industry may initiate or contribute to the decline of some wildlife populations. The potential harm to these populations from an additional source of mortality makes careful evaluation of proposed facilities essential. Due to local differences in wildlife concentration and movement patterns, habitats, area topography, facility design, and weather, each proposed development site is unique and requires detailed, individual evaluation.

The potential harm to wildlife populations from an additional source of mortality or adverse habitat impacts makes careful evaluation of proposed facilities essential.

Each site poses its own set of negative possibilities for wildlife.

Wind energy is rapidly expanding into habitats and regions that have not been well studied.

Pre-development evaluations should be conducted by a team with no vested interest.

From reading Biological reports and other documents associated with recent wind proposals, we have come to believe that some consultants frequently used by the wind industry indeed may have a vested interest – and an increasing tendency to omit collecting key data, and conduct slanted analysis. Wind consultant reports consistently predict minor mortality and minimize revealing other development impacts in a manner that favors the industrial wind developer.

Avoid or minimize impacts to wildlife and their habitat through: 1) Proper evaluation of potential wind energy sites; 2) proper location and design of turbines and associated structures within sites selected for development; and 3) pre-and post-construction research and monitoring to identify and/or assess impacts to wildlife populations.

As we describe throughout these comments, no valid baseline has yet been established, and the DEIS greatly underplays the wild scenic beauty, biodiversity and other outstanding attributes of the China Mountain site.

Identify and evaluate reference sites, preferably within the geographic area. ***Reference sites are high-quality wildlife areas where wind development would result in the maximum negative impact on wildlife.***

The China Mountain/Browns Bench Borderlands area is just such a reference site, where maximum negative impacts on sage-grouse and other wildlife would occur from industrial wind siting. Impacts in such a site cannot be "minimized" – a term falsely used and a claim falsely made throughout the DEIS.

Its value as a reference site was known since the battle over placement of the first intrusive MET towers. Then, the BLM RAC wrote a letter recommending that placement of MET towers be denied due to the

critical sage-grouse, cultural and other values threatened by the project. Sadly, the BLM Manager (Secrist) ignored this – and allowed the first incremental series of intrusive and damaging towers to be placed. The developer has known about the severe conflicts for nearly a decade now.

FWS recommended:

Avoid *placing turbines in documented locations of ESA-protected species. Avoid placing turbines in bird migration pathways or in areas where birds are concentrated. Avoid placing turbines near bat hibernation, breeding and maternity/nursery colonies, in migration corridors, or in flight paths between colonies and feeding areas. Configure turbine arrays to avoid areas or features of the landscape known to attract raptors or sites of potential avian mortality; avoid fragmenting large, continuous tracts of wildlife habitat. Where practical,* ***place turbines on lands already altered or cultivated, and away from areas of intact and healthy native habitats****. If not practical, select fragmented or degraded habitats over relatively large intact areas. Minimize infrastructure, develop a habitat restoration plan, reduce carrion availability.*

Sage-grouse, golden eagles, and a diversity of other birds are concentrated here. It is a sage-grouse stronghold, and core area. But necessary thorough site-specific baseline studies to establish other species hibernation, breeding, maternity/nursery colonies, migration corridors, flight paths between colonies and feeding areas, have not been done to date. Largely superficial general overview studies are all that exist for all species except sage-grouse. Studies are not even up to industry standards.

Sage-grouse are now a federal candidate species that has been found to Warrant ESA protection. BLM conservation policies, a raft of Instruction Memoranda, and other guidance, promises to the public, and legal requirements require their habitat protection – and protection of other sensitive species and migratory birds that the DEIS largely ignored or glossed over.

The China Mountain project maximizes infrastructure and human intrusion and disturbance – with 80 miles of new or expanded roading, a 19 mile new powerline, siting in a location with harsh winter weather, insanely long inbound haul routes, etc.

The FWS protocol ranked sites. *First, identify and evaluate reference sites* ***(where wind development would result in maximum negative impact****), and use these sites to determine the comparative risks of developing other potential sites. Second, evaluate potential sites to determine risks to wildlife, and rank sites against each other using the highest ranking site as a standard. Evaluation should be conducted by qualified biologists from state and federal agencies.*

BLM must conduct a risk assessment, and it is very likely that CM/BB rates the highest risk. This has been known from the start. See RAC letter, see WWP, CHD and IBH comments and Appeals of both MET tower EAs incorporated here by reference.

A checklist included “physical attributes”, species occurrence, ecological attractiveness and evaluation of ecological magnets. Rankings then serve as indicators of relative risk to wildlife and thus provide an estimator of the level of impact. FWS stated that pre-construction studies should estimate the impacts of wind power development on wildlife. All sites need to be monitored for impacts on wildlife after construction. Monitoring Methods include: Point counts, winter raptor surveys, lek counts, migration counts, **radar surveillance**, ungulate surveys, spotlight surveys, acoustic surveillance (bats), species/guild/group list**, radar**, migration counts, nests/area.

FWS’s original interim guidelines, well known for 8 years now, are validated by current sage-grouse research, including research on energy development effects, and other current ecological science.

Regrettably, despite great public and agency concern, BLM did not follow this current science-based guidance, and was strong-armed into incrementally expanding the MET tower and other intrusion and now moving this Wind EIS ahead of the RMP.

The developer has known from the start of the extreme ecological concerns and resource conflicts associated with this site. So if BLM selects No Action, No Action plus immediate ACEC designation, or requires examination of an expanded range of alternatives and greatly expanded baseline and other analysis in a SEIS, RES has no basis for complaining.

The flawed China Mountain DEIS is plagued by:

- Failure to recognize the unique and beautiful character of the landscape and its importance for protection of biodiversity across the region. This is a high caliber reference area.
- Inadequate analysis of impacts to a broad array of wildlife populations, and failure to recognize and address the battery of threats and cumulative impacts to these populations and habitats.
- Inadequate analysis and comparative evaluation of other potential wind energy sites, and thus no comparative analysis of potential impacts.
- Inability to minimize a plethora of impacts. You cannot minimize impacts by siting a facility in lands that certainly qualify as a **reference area**, a site long known as a sage-grouse stronghold, and that recent DOI-sanctioned 2010 sage-grouse core area mapping shows to be part of a sage-grouse critical core area. The EIS repeatedly pointing to laundry lists of BMPs and standard reclamation measures is not "minimizing" anything – except wind industry accountability.
- No solid baseline and pre-Met Tower disturbance monitoring of important wildlife populations use of habitats. This is necessary to understand impacts of MET tower placement – such as sage-grouse use of the area prior to incremental placement of MET towers – and likely behavioral avoidance of sites following tower placement. There is no baseline for comparison. Towers are constructed prior to collection of a wide array of necessary avian and bat baseline data. BLM collected no data on pre-Met data on bat use of sites, or bird migration, and will have no baseline data for comparison.
- No solid site-specific baseline data has yet provided for any component of the environment other than sage-grouse– springs, seeps, streams, watershed conditions, microbiotic crusts, soils, important mature and old growth vegetation communities, scenic geological formations, unique value of the area for its biological and scenic attributes, status of ground and surface waters, watershed processes, soil erosion, integrity of native vegetation communities, presence of cheatgrass - and risk of weed expansion, etc. Ecological condition of lands, waters, habitats, etc. are not provided based on current site-specific surveys and analysis across BLM, state and all private lands involved. There are no current rangeland health analyses, and the analyses that have been conducted to date found many problems in large areas of BLM lands and watersheds in the project Footprint. See Simplot Dynamac EA, see RCI EA. Please incorporate these BLM documents into this project record.
- The DEIS analysis remains largely programmatic in nature - lacking critical site-specific data on where all components of the project will be located, the level of disturbance that will result, and assessment of impacts. The specifics of the industrial development are referred to as "flexible".
- Turbines are placed across documented locations for special status species – including Brewer's sparrow and sage-grouse.
- Limited or flawed studies on migrating raptor and bats.
- Inadequate migratory bird surveys especially comprehensive spring and late summer night-time radar work, non-existent site-specific systematic inventories for small mammals, reptiles, amphibians, and other biota.
- Absence of any real data on nearly all sensitive species.

- Conflicts with BLM's sage-grouse and sagebrush conservation policies and conservation plan, which are to manage habitat for sensitive species so as to avoid ESA listing, so the same precautions should have been taken as for ESA species, but were not. BLM policy on special status species directs BLM to ensure that activities authorized, funded, or carried out do not contribute to the need to list any species. BLM did not ensure this – and instead the action alternatives propel species towards ESA listing.

BLM has long had abundant evidence of special status species occurrence in, and reliance on, these lands and the need to protect them from industrial development disturbance. Knick et al. 2003, stressed the urgent need for protection of sagebrush habitats, and Connelly et al. 2000 and Braun 1998 described the many important habitat components and problems faced by sage grouse. This was followed by the Conservation Assessment for greater sage-grouse (Connelly et al. 2004), then all the energy development impact studies of disastrous impacts in sagebrush habitats in WY-MT by Doherty, Naugle and others, and recently the Knick and Connelly *Studies in Avian Biology* Sage-grouse Monograph Chapters, in late 2010 the DOI-sanctioned Doherty et al. Sage-grouse Core Area mapping, many recent IDFG studies in this very area – with results in Progress Reports, the Steven's Master Thesis, and other references, and most recently – very important Nevada sage-grouse use data based on recent telemetry work. It is inexcusable that the Nevada work was delayed this long.

If BLM had followed scientific guidance that has long been established (see Manes et al. 2002), and undertaken the necessary unbiased systematic and scientific process of looking at wind development and comparative siting, on a landscape scale in the region, and honestly weighed environmental consequences of development in intact habitats and the dire consequences of development here - such as loss or extirpation of: Sage grouse populations; rich migratory songbird habitat; a regionally significant golden eagle population and nesting habitats of eagles and a wealth of raptor species; a diversity of human recreational uses and enjoyment - then this project would never have gotten to the EIS stage. Now that all this time, energy and taxpayer expense has been used on this sapping Wind EIS effort, BLM should salvage some of that effort by designating an ACEC and placing the area off-limits to development.

Please consider all of these comments to be in support of the Relevant and Important Values worthy of ACEC designation. Please apply and enter into the Wind Project record all WWP comments on the Jarbidge RMP process including the Draft RMP, and all e-mails to Ms. Betts and former Manager VanderVoet to ACEC designation as well. We note that both these BLM staffers – head of the Field Office and head of the new RMP effort – have recently moved to other areas. Is this to further slow down completion of the RMP – and give more advantage to the wind boondoggle beating the RMP to finish line?

BLM must conduct RMP amendments designating an ACEC spanning ID and NV, and identify sites on public lands in both Wells, Jarbidge, as well as adjacent Burley lands or other areas where siting of industrial wind would have much-reduced impacts – and move any RES project there. This would also benefit other wind developers, as areas of minimal conflict would be clearly identified.

Manes et al. (2002) made the following important recommendations that BLM has long-ignored:

> ***A key tool for avoiding unnecessary negative ecological impacts of wind power development is*** *planning.* ***Landscape-level examinations of key habitats, migration corridors, staging areas, and even*** **[we disagree with the use of "even"]** ***scenic areas should be used to develop general siting strategies. This approach, combined with assessments of wind resources, will help to ensure that turbines generate the greatest power and the least ecological disturbance and controversy.***

> ***Wind power facilities should be sited on lands that are already altered or cultivated, away areas of intact and healthy native habitats. If this is not practical, then fragmented or degraded habitats should be selected over relatively intact areas****. Use of Landsat Thematic Mapper (TM) satellite imagery may help to differentiate between intact landscapes and fragmented areas. Turbines should be grouped together, instead of being scattered across a landscape, and they should be situated in a way that does not interfere with important wildlife movement corridors and staging areas. Turbines should be situated along the periphery of such landscapes, particularly if the identified corridor or area is small.*

This remains true today, and must be followed by BLM, with alternative sites examined and areas with minimal conflicts identified. Instead, BLM proposes to strip, gut, or violate, the hard-won protections for wildlife that are found in the existing RMPs.

Some Economic and Mitigation Concerns

The wind/weather pattern characteristics and economic claims are unsubstantiated with solid data and analysis. How can it possibly be cheaper to bulldoze, dynamite, and maintain under winter weather conditions a long series of roads and facilities up and down and across a rugged high desert tableland? How do facility maintenance and operation costs in such a location compare to many flatter, somewhat less windy sites? How do mitigation costs compare between this and other sites – for example, private lands where little mitigation would be required, or less sensitive public lands?

Part of the reason it may be cheaper is that BLM is not requiring and clearly specifying the level of mitigation that must be required for the loss of sage grouse, raptor and other regionally significant populations of wildlife including golden eagles, as well as the facility's large-scale interference with an avian migration site, and the inevitable weed invasions and other habitat losses that will be caused.

The bottom line is that the impacts cannot be mitigated. There is no substitute habitat that can be magically "improved", or where birds can move away to. This landscape has a unique juxtaposition of habitat components that sage-grouse require, and that also supports a high degree of high quality habitat for a diversity of native plant and animal species. The rocky dissected tableland has been in many areas relatively less developed and remains unplowed/seeded by BLM – unlike the rest of the Jarbidge that has suffered so heavily from development for livestock. Mitigation here, if BLM allows this unmitigatable project to go forward, must be for total loss of the grouse population in the only high quality remaining habitat – as well as severe losses jeopardizing O'Neill Basin and Shoshone Basin birds as well.

The developer is claiming that 16 million dollars mitigation will somehow be effective. Full analysis of where, when and how any mitigation would occur, and the certainty of any effectiveness, must be provided. Regarding the monetary value alone: We have just read of a wind project in Oregon where mitigation costs are placed at around a quarter billion dollars. Certainly China Mountain equals or surpasses that site in importance. 16 million dollars won't even cover the cost of the massive disturbance to wildlife from the Bruneau Desert-Three Creek and other massive road and gravel pit disturbances off-site. Also regarding mitigation: Connections of various members of the rancher families where RES would site windmills that may profit from conservation easements sold to RES as "mitigation" must be revealed.

We are concerned that the industry is trying to weaken IDFG concerns and soften opposition through funding "research" for the next few years to study wind development effects on the population as it blinks out - this is not really mitigation.

IDFG has shown itself to be vulnerable to political interference related to China Mountain - including political interference and retribution against an agency manager that spoke the truth about the impacts of the China Mountain Wind Project. Please see Attached articles about the removal of IDFG Magic Valley Regional Manager Parrish after he expressed concerns about the China Mountain wind farm impacts. This sent a clear signal and had a chilling effect on agency personnel involved in providing scientific input into this process. If agency biologists speak the truth about the RES China Mountain Wind Project - will they be demoted or moved against their will?

Regarding the DEIS claims of mitigation: On-site mitigation is minimal, and primarily is what is minimally required of the developer, anyway. There is no NEPA analysis of the value or effectiveness of off-site mitigation although it is clearly a connected action. Please also provide a comparison between mitigation costs at the site, and for example, mitigation for an alternative marginal ag land site surrounded by cheatgrass.

There is a lot of marginal cropland and private land, and over-allocation of irrigation water on the Snake River Plain and surrounding areas. Large areas near I-80 in Elko County especially in the checkerboard areas or the mining belt are weed-infested wastelands, and have significant amounts of wind. It would be a win-win scenario if such land became wind facilities, and not the highest value wildlife habitat in the region, located within a very likely migratory bird corridor and biodiversity hotspot. Large powerlines and improved roads also run close to a lot of this other land. BLM must start with a new range of alternatives – that include alternative siting on private lands, BLM lands in Elko or the Jarbidge or Burley east of Salmon Falls Reservoir, or closer to Las Vegas, or a combination of these alternatives. Plus there is no reason 200 MW can't be generated with a series of smaller responsibly sited projects right by powerlines.

BLM is unwilling to say No to harmful projects especially if prominent ranchers profit from them. This long-time BLM pattern is coupled with a current recklessness at the highest level of Interior regarding siting of energy projects, and the atmosphere of political favoritism and cronyism with industry that exists in Idaho at the state level at present. In fact, a Public Relations representative hired by RES was also appointed by Idaho Governor Butch Otter to the state legislature. Industry is muscling its way in--- to destroy a scenic wild area that provides critical migration and nesting habitat for birds, critical winter habitat for large ungulates, etc. – with the consequence of extirpation and loss of sage-grouse and other populations in the area.

It is impossible to fully gauge how turbine death of migrating ferruginous hawks, burrowing owls, Brewer's sparrows, yellow warblers, etc. may promote declines in nesting bird populations in lands to the North. As an example, the Craters of the Moon FEIS/RMP described only a few colonies of special status bat species. What if bats migrate from wintering areas to these sites – through the China Mountain area, where these normally long-lived species with low reproductive rates will be decimated by turbine mortality? What will be the economic losses - such a natural insect pest control – from animal deaths caused by China Mountain? What will the loss of revenue from outdoor activities be once the lands are blighted by industrial wind, and wildlife populations decimated?

If a developer were seriously interested in developing an economically sound project, it would be done on flatter lands or lands near existing infrastructure, with consistent wind with less violent extremes– which abound across the Snake River Plain, and many sites in Nevada. A comparison of a reasonable range of alternatives here would have included a comparison with sites very feasible for development. It is BLM's duty as a management agency to protect the public interest. By sacrificing sage grouse, migratory birds, and important wild lands by producing an EIS with numbingly similar destructive action alternatives, BLM has forsaken its duty under NEPA and FLPMA. Sure, alternative sites may be somewhat less windy than some parts of the RES-targeted area here– but by no means does all of the project area have very good wind. Alternative siting is likely to be sustainable and less expensive to mitigate and to operate over

the long run. Violent winter storm and blizzard events, washed-out roadcuts, dried up springs dependent on snowbank melt, and other adverse conditions would be much less likely in lower elevation more accessible terrain, or where large areas are already seeded with crested wheatgrass, or choked with cheatgrass, mustard and tumbleweed-infested – and so serve as habitat for few species of wildlife and have much less recreational value. Development of such sites would greatly reduce impairment of the public lands. The sheer number of roads will create an erosion nightmare – both for wind and water erosion. Plus, roads serve as corridors for predators of sage-grouse. An alternatively sited project might generate a little bit less energy --- but so what? Taxpayers or rate payers are subsidizing this project anyway. Large amounts of power will be lost and wasted enroute to Las Vegas. Consideration of these alternatives is necessary to prevent undue degradation of public lands, avifauna, recreational uses, etc. Plus wind is unreliable, so it is likely that additional very expensive development – such as a water storage battery – will be required to provide reliable power. The full cost of making up for wind lulls must also be laid out.

DEIS Purpose and Need

The Purpose and Need for this Project is described as "*to respond to a FLPMA right of way application request submitted by CMW to construct, operate, maintain, and decommission a commercial scale windpowered electric generation facility and associated infrastructure on public lands …"*. DEIS at 1-4. Allowing consideration of this request and MET towers from the start has violated the Jarbidge RMP. BLM should not have allowed RES to proceed to this point, including its placement of the ugly and intrusive MET towers, and the damage and disruption to wildlife and viewsheds that they are causing along with the physical impacts and sagebrush destruction that they have caused. BLM violated its own RMP and Conservation Plan and policies for greater sage-grouse in allowing this project to move forward at all on this site. BLM should only have accepted an application on suitable lands – not unsuitable ones.

But even after violating both RMPs in accepting this application in the first place, and segmenting in a series of MET towers that serve to reduce grouse use of the developer-targeted area, BLM should have responded to the FLPMA ROW applications this DEIS claims to analyze by pointing to, and requiring analysis of, a broad range of other potential sites in Nevada and Idaho so that the agency could comply with requirements for protection of sagebrush and other critical wildlife habitats, irreplaceable cultural sites, and unique wild land areas as required by the existing RMPs.

Across much of southern Idaho, industrial wind energy has proliferated, and is increasingly viewed as a plague and blight on the land by many residents, as well as businesses that must purchase power at higher rates. There is a wind power glut, and the industry has already alienated a considerable segment of the public. It is also considered to be an energy source that will soon be outpaced by rooftop solar and other innovations.

This proliferation of wind development - at sites with significantly lower peak wind speeds than China Mountain - shows convincingly that there are many other suitable areas where RES could site a facility – but it has refused. In fact, consistency of wind – not extreme wind interspersed by periods of calm, characterize the best wind development sites. Perhaps seeking the cheap, rock bottom fees that BLM charges, and huge taxpayer subsidies of all sorts including massive loan guarantees where taxpayers would be left holding the loan if the developer defaults, are what would make this project profitable. We note that in some other large-scale destructive industrial "renewables" projects, the original project proponent, who had promised great things, immediately sold the ROW to other entities once gaining the ROW. Who knows who will end up actually building a project here, and how solvent they will be? If BLM issues a ROW, the developer can sell it to another party. What if they tear the place to pieces, go bankrupt, and bonding is greatly inadequate? Taxpayers will be left footing the bill. This whole situation in a way - of large-scale remote-sited industrial renewables - appears to be the speculation bubble *du jour*.

We are also concerned that an industrial wind ROW here could be a steppingstone for other development and resource exploitation. The *Times-News* reported on the FERC process for a potential Corral Creek hydropower project in 2009. Could this project, strategically located straddling the ID-NV border, and where with the addition of a hydro project, water could be moved to a high elevation - also at some point be a steppingstone for water pipelines and water export? Perhaps of Salmon Falls Reservoir and/or Cedar Creek Reservoir water south to Las Vegas?

The full burden of this project on taxpayers and rate payers under a range of foreseeable scenarios must be examined in detail in the EIS. The public or rate payers would be subsidizing this environmental nightmare in various ways. So the public deserves to know full details of both wind characteristics and reliability/consistency as well as economic considerations such as: How much greater the costs would be with an industrial wind farm sited in a remote wild land area at high elevation where construction and operation costs will be maximized – and damage to all resources very extreme –vs. siting in an alternative disturbed location on other moderately windy Elko, Burley or Jarbidge area lands (including those identified to the north in the Draft RMP), or degraded agricultural lands?

BLM must provide mapping of potential wind "resources" in land areas with many fewer environmental conflicts. It must compare these areas with specific info from the data collected on-site. This must be provided to the public in a SEIS, where a new range of alternatives is considered as well.

It is striking how little information on wind characteristics, reliability, etc. are provided. Interior's greatly flawed energy oversight allows the developer to keep information from MET towers sited on public land secret from the public. This is not acceptable, and all information on wind characteristics across the area must be provided.

The Jarbidge and Wells Land Use Plans did not envision, allocate, or designate "development" of this type in this area of critically important values of the public lands. Both RMPs, not just Jarbidge, must be amended if BLM would approve the project.

FLPMA specifically states that not all public lands must be used for all purposes. The welter of environmental conflicts with siting a facility here show that this is a site where destructive use by industrial wind with a massive project Footprint must be denied.

BLM must not set such a narrow Purpose and Need, and then respond with blinders on to only what the applicant wants. BLM enables the developer to discard alternative siting, and artificially constrain the range of alternatives to the most harmful area - down to the acre – sought by the energy developer.

We are greatly concerned that essential wind speed and characteristics, and financial analysis have not been provided to the public, especially given that the map of wind characteristics shows nearly 2/3 of the Project Area with "marginal" and "fair" wind. See DEIS Figure 1-2. The DEIS does not provide necessary financial data, wind data or information to determine what is or is not economically feasible for the developer. Would more funding/investors be attracted to a much more environmentally friendly alternative siting location – rather than this recklessly sited environmental disaster? Would this also mean taxpayers would not so greatly subsidize this harmful project through loan guarantees?

Please provide detailed discussion, facts, figures and analysis of all federal, state, or other tax breaks, and subsidies the developer may plan to receive.

Please also provide detailed information on the tax dollars sunk into new and expanded transmission lines such as SWIP that may be connected to this China Mountain Project, and other looming wind development undertakings. We are greatly concerned that SWIP has been authorized by a Congressional

Rider attached by Harry Reid that does not allow environmental challenges. The full adverse direct, indirect and cumulative impacts and costs of SWIP, whose northern leg has been promoted in part to hook up with China Mountain, must also be examined here. While it now appears that another line may be used to take China Mountain power to Las Vegas casinos, it is very foreseeable that additional wind development could occur – for example, on private lands to the west – and power be carried through the new China Mountain line to hook up with the northern leg of SWIP, or that other foreseeable projects might occur– and that any NEPA review might be minimal.

Large amounts of the power generated will be lost in transmission from the line that China Mountain now proposes to hook up to. Just how much power will be lost enroute to the casinos? Not only will the landscape be laid to waste, power will be wasted, too.

Any "need" for this action, beyond satisfying the applicant's request, is not described at all. In particular, there is no evidence presented in the DEIS that it is necessary to generate wind energy at Browns Bench/China Mountain. There is no evidence that this project is needed in this site at all. No quantitative or comparative data on wind suitability is presented in the DEIS. Agencies have not evaluated alternative regional systems for generating and transmitting electrical power from renewable sources that would not involve such large-scale destruction of a sage-grouse stronghold and core habitat, a wintering elk enclave, and a beautiful wildland setting. RES has not demonstrated that there is a need to construct the project based on the availability of wind resources - especially since DEIS mapping shows mediocre wind over significant portions of the project area. The agencies must disclose meteorological information and include this information for public review in a supplement to the DEIS. Without this information, there is no basis for the public to evaluate the claim that there is a "need" for the facility, new linking transmission line, and horrendous expansion of the road network.

Applicants Objectives

DEIS at 1-4 states the applicants' objectives are *"to provide commercial-scale wind power in an environmentally responsible manner"*. If that is the case, and the proponent is sincere – then the proposal must be immediately abandoned and an alternative location selected. BLM must evaluate the credibility of this statement, given that many of the severe conflicts were known here from the start, and RES was fully informed of those conflicts, including by the BLM RAC at the time of the initial MET tower proposal. Why was this not presented in the DEIS? The public is being told only part of the story, and what is being told is biased by BLM in favor of the developer.

It is impossible to provide wind energy in a responsible manner when the developer insists on destroying a crucial core area for sage-grouse - rather than siting the project in any of the millions of acres of public (and/or private) lands between Twin Falls and Las Vegas with adequate wind to generate power. In fact, wouldn't much less power be lost in transmission with alternative siting closer to use areas? What are the power amounts that would be lost – both in the new 18 mile line, as well as until the power arrives at the supposed point of use in Vegas?

In the DEIS at 1-4 to 1-5, the developer has been allowed to defined what it supposedly "needs" so narrowly so that it can continue to focus on only a single course of action. Why 200 MW? There is no reason the 200 MW couldn't be generated elsewhere throughout Nevada and/or marginal private ag lands of Idaho in any of various combinations. How many land areas between TF and Vegas could be used to generate 200 MW? As recent news articles show, wind power does not enhance reliability in many instances. When winds don't blow, it is unreliable. Typically, to make a project "reliable" – even more energy – natural gas – water storage batteries, or other additional highly intrusive and damaging development to this landscape would have to occur – and the lands become further industrialized and destroyed and wildlife lost with the burden of additional energy infrastructure.

DEIS Project Features

The DEIS does not contain project design specifics for all roads or the transmission line or many other parts of this project. So the degree and severity of disturbance from all portions of development - under any of the action alternatives cannot be determined. It is impossible to evaluate these alternatives and their impacts without much more specific and detailed plans. We note that the "Project Features Common to All Alternatives" could be applied at any of dozens of alternative locations. Why were no other locations examined?

How do reclamation costs compare between this rugged mountainous siting with massive roadcuts, reclamation, mitigation --- and alternative locations?

Will the roadcuts be reclaimed, and roads returned to their 2011 condition at the termination of the project? Will the Bruneau Desert and other access-hauling routes be returned to their prior condition? Will any be immediately reclaimed – say after the construction cranes leave? Where will all road materials come from – both for project construction and reclamation? This is an important impact that must be considered. What wildlife habitats and species will be affected by vegetation removal and grinding of rocks for road base and other activities at all materials sites? Will this occur on public or private lands? Both? If a turbine needs to be replaced, how much will reclaimed areas be torn up again?

How will all the project infrastructure combined affect, displace, or otherwise alter behavior patterns of wildlife? How will it increase "weedy" species, or mesopredators? How will the turbines and their noise and visual effects including motion/flicker effect impact various wildlife species?

Water

Much more information on watersheds and water resources must be provided. How will all aspects of this project, including the gargantuan road network affect watersheds, hydrology, aquifer percolation, and ultimately the perennial or persistent flows of springs/water resources? What are basal flows of springs over all periods of the year? Is there past or baseline flow data? Who holds the water rights? How have flows changed over time? How are direct, indirect and cumulative impacts of livestock grazing and livestock water facilities affecting these flows already? Springs in arid lands may be critical stopover habitats for migrants. See Attached info necessary for springs.

How will springs and aquifer flows be affected by the large-scale watershed disturbance? What will be the source of water for various construction activities? How much water will be used in all phases of construction and operations – ranging from the batch plant to keeping the dust down on roads? Where will all water sources - including wells – be located? Have new wells already been drilled for this project?

BLM still has no data on the ecological conditions of 50-60 springs and seeps in the Brackett Bench allotment alone. Many of these springs and seeps are located on the face and slopes of the tableland where watersheds will be greatly disturbed by industrial wind development. See Jarbidge BLM Tews (now Simplot) grazing permit documents, and no only limited old, stale info is provided in the DEIS.

The "Affected Environment" description of the landscape and wildlife lacks important baseline information on the unique setting, the characteristics, populations, habitat conditions, etc. – including pre-MET tower habitat use. There is no link to a larger regional picture. How scarce are springs, sage grouse leks, unburned winter habitat, mule deer winter range, or beautiful and biodiverse tablelands across this

landscape? How does this elevate the importance of the site? These lands are prime habitat for a wealth of raptor species including ferruginous hawk, prairie falcon, golden eagle and many other species.

The Land Use Plans have seasonal avoidance criteria to prevent activities from harming wildlife. Where and when have these criteria been implemented? This is essential to understand so that an estimate can be made of their effectiveness, and of the consequences of stripping or gutting these protections as is proposed.

The Jarbidge RMP, as amended by the BLM Wind PEIS, clearly prohibits wind development in the China Mountain landscape: ***"wind energy development would be restricted from wildlife habitats where adverse effects could not be mitigated".*** DEIS at 1-5. Effects here cannot be mitigated – this is a unique area with the best of the best remaining habitat. Wasn't the Wells EIS similarly amended?

DEIS 1-5 lists modest changes that in no way, shape or form mitigate the full adverse impact of the project. It irrationally concludes "therefore, the proposal conforms to these amendments to the Jarbidge RMP". All that would be done is shift a long new powerline, and list a grab bag of meager BMPs. There is no evidence that these efforts serve to "**minimize** environmental and operational impacts, including to wildlife". Then, the following sentence confusingly states "The project as proposed is not in conformance … therefore, amendments would be necessary". Why does not BLM here just say the project should be denied – rather than amending existing Land Use Plan protections to enable maximizing losses to sagebrush and other important habitats?

BLM is developing a new RMP – and one positive feature of that effort is that it would place the wind project area off-limits to wind development. Not only has this CM Wind process slowed down the RMP process, the developer is trying to get the Wind Project completed ahead of the new RMP – and thwart the RMP outcomes.

Timing limits in the Wells RMP are discussed. It certainly seems that the Wells RMP also prohibits adverse impacts to sensitive species, and provides other protections that would prohibit wind development and operation here. The Wells RMP too must be amended as it will be impossible to build and operate this industrial wind facility without violating numerous Wells RMP provisions. A SEIS must be prepared, preceded by new scoping.

Identification of Issues

Why is there no discussion of the proposed water storage battery and dams/reservoirs that Symbiotics (now sold to another party) is involved in by Corral Creek – as reported by the *Times-News* in 2009? The project is still active with FERC is it not? What is the status of this? Why is there no update? Isn't this foreseeable?

See:

http://www.gpo.gov/fdsys/granule/FR-2009-02-11/E9-2869/content-detail.html

Corral Creek South Hydro, LLC; Notice of Preliminary Permit Application Accepted for Filing and Soliciting Comments, Motions To Intervene and Competing Applications

February 4, 2009.

On November 5, 2008, Corral Creek South Hydro, LLC filed an application, pursuant to section 4(f) of the Federal Power Act (FPA), proposing to study the feasibility of the Corral Creek South Pumped Storage Project to be located in Twin Falls County, Idaho on federal land administered by the Bureau of Land Management. The proposed project would be closed loop and would not be built on an existing body of water.

The proposed project would consist of:
(1) An upper earthen dam with a height of 180 feet and a length of 8,400 feet;
(2) an upper reservoir with a surface area of 118 acres, a capacity of 9,120 acre-feet, and a maximum pool elevation of 6,620 feet msl;
(3) a lower earthen dam with a height of 200 feet and a length of 4,140 feet;
(4) a lower reservoir with a surface area of 113 acres, a capacity of 10,880 acre-feet, and a maximum pool elevation of 5,500 feet msl;
(5) a 30 foot diameter, 4,710 foot long penstock;
(6) a powerhouse containing 10 pump/turbine units with a total installed capacity of 1,100 MW;
(7) a 10.6 mile long, 500 kV transmission line and;
(8) appurtenant facilities. The proposed project would have an annual production of 3,212 GWh which would be sold to a local utility.

Also, http://www.allbusiness.com/energy-utilities/utilities-industry-electric-power/12067790-1.html

From Nate Poppino's March 2009 *Times-News* article on Corral Creek Hydro:

"The end result, said Justin Barker with Symbiotics, would be "like a giant battery": a system that runs water between the two reservoirs, creating power to stabilize wind and solar projects and help utilities in the region meet growing peak demand levels. Spare power from renewable projects could help power the water pump, which would consume more electricity than the site generates …".

This article also discusses the developer seeking **purchase of water**.

The initial fill would rely on water purchased elsewhere in the system, he said. But records kept by the U.S. Department of Agriculture's Natural Resources Conservation Service confirm that Salmon Falls Creek Reservoir has been low for much of the past decade and Salmon Tract irrigators haven't had the easiest time securing adequate irrigation water.
"That's one of the biggest issues, is whether we can negotiate with the water-rights holders within the region," Barker said.

Even the consideration of such a proposal must mean the wind "resource" at China Mountain is not very consistent or constant.

Many other important issues are not identified, such as climate change exacerbating difficulty of rehab efforts and as a further stress on water, land and wildlife resources impacted and impaired by the wind development. The wind development would also cause the loss of a landscape essential to buffering many native species from climate change effects, loss of the unique and beautiful character of the wild landscape, and the regionally significant area for native species and biodiversity protection.

Significant Issues

We agree that many of the issues listed are significant. In addition, soil loss, erosion, desertification, and harm to microbiotic crusts are significant issues. Weed invasion and spread is a significant issue. The

viability of **populations** of sage-grouse, pygmy rabbit, Brewer's sparrow and other imperiled species – including at the local and regional level - are significant issues. Darkness of night skies is a significant issue. Impacts on hiking, photography, sightseeing and aesthetic use and enjoyment of the public lands are significant issues. The uniqueness of this biodiverse landscape and its regional importance are significant issues. The large amount of tax breaks/tax subsidies/loan guarantees that wind developers reap is a significant issue and the economic losses to recreation and other businesses is a significant issue. The inability to mitigate the severe adverse impacts to sage-grouse and other species is a significant issue.

The project footprint that will cause intensified human uses all across the area from the massive road upgrades is a significant issue. Water quantity is a significant issue – all of the veg clearing, dynamiting of roads and turbine craters, construction of large flat road surfaces, alteration or loss of snowbanks that replenish springs and stream headwaters, and the micro-climate altering effect of the wind turbines themselves will change surface flows and ground water infiltration, and impact the amount of flow and perennial nature of the springs and seeps in this region. This is a very significant issue. The importance of this area for migrating songbirds including in spring is a significant issue. The destruction of a refuge of the best remaining habitat in the region, and destruction of an area of exceptional biodiversity are all significant issues – unaddressed in the "don't look don't find" wind industry consultant Biological reports (see WEST Young et al. 2009) that are not even up to wind industry standards. The destruction of known sage-grouse core habitat and a sage-grouse stronghold for birds from two states is a significant issue.

1-12. BLM must also consider the ESA, since sage-grouse, pygmy rabbit, the golden eagle and many other rare species that inhabit these lands are likely to be listed under the ESA in the near future. Listing would be accelerated and driven in significant part by the China Mountain wind project. Listing will certainly occur during the 30 year period (minimum) of the industrial wind development. The analysis must consider what will occur during the next 30 years if this project were to be built, and how soon species will be listed, then.

This fails to mention BLM's sage-grouse conservation plan and litany of conservation promises, including a whole series of Memos and other requirements and state plans related to sage-grouse and sagebrush species conservation, including the recent Core Area mapping and analysis done by Doherty et al. 2010 for DOI.

What about potential contamination from hazardous substances – including those in parts of the wind turbines? What about the Clean Water Act, as significant amounts of sediment and other water pollution from other sources such as herbicide runoff are likely. Plus these drainages connect with Salmon Falls Reservoir – which has serious water quality issues, and Cedar Creek Reservoir as well. This also fails to address increased wildfire risk from weeds, increased motorized human use and disturbance, increased powerline raptor electrocutions – which also have caused wildfires in Idaho, and operation of equipment over the life of the project.

Site Preparation

There is greatly inadequate info, data and mapping related to all engineering and disturbance parts of this. Where and how will all geotechnical work occur? How much mature and old growth vegetation would be crushed and destroyed – as has occurred with low sagebrush by some MET tower sites already? Is old growth or mature sage, mahogany, aspen to be destroyed? What would the effects of a seismic grid be in altering and destroying soils, veg, microbiotic crusts, promoting weeds, collapsing animal burrows, etc.? What would be the impacts on pygmy rabbits, sage-grouse and other native wildlife of this seismic work? How long lasting will the damage be and what amount of area will be crushed? Where specifically will it occur? The quality of the habitat, plant community, scenic setting, etc. disturbed by geotechnical work

and all parts of this development must be considered – not just acres bulldozed. How will this promote weed invasion and spread?

We are baffled how such a major engineering project could be proposed, while so little site-specific information that is essential to understand the full impacts and costs of project development is provided. The DEIS is really a programmatic document in many ways.

DEIS Micro-Siting is Not Really "Micro"

The EIS attempts to hide full details on the extent of development. It fails to provide detailed upfront site-specific plans and analysis – likely so the horrific impacts to viewsheds and wildlife habitats can be masked under the DEIS claim that "***preliminary facility siting is flexible***". DEIS at 2-9. This is a major engineering project – yet BLM is letting the developer get away with minimal upfront detailed planning and site-specific analysis in the DEIS. Thus, it is impossible to predict the degree and severity of impacts to all parts of the environment, and how extensive any mitigation must be. No POD has been provided for public review. In fact, BLM is going out of its way to conceal information, such as the flawed WEST Young et al. 2009 report, from public disclosure. A Supplemental EIS must be prepared to lay out critical information. BLM still refused to provide reports – claiming a FOIA is required (even though WWP already filed a FOIA for China Mountain information).

"Phased" construction would still ensure severe and extensive adverse impacts. It is likely only being proposed because it may be easier for the developer to get financing, and to create the illusion of Alternatives. It doesn't matter how many phases this is broken into – the end result will be ruinous – as the sage-grouse analysis shows. Another reason it may be proposed is so that BLM can appear to be meeting the developer half way. However, Powerpoints from years ago show the developer has planned for Phased development all along. This appears to be a set-up to make it look like Phasing development is some beneficial action by BLM.

Haul Routes

It appears the developer is seriously underestimating the degree of road upgrading that is likely to occur with all haul routes, including curve areas on existing paved roads. Will any additional paving occur on roads that are currently gravel? Where will any and all pull-outs, shoulders, upgrades, new or enlarged culverts, etc. be located – and what will the impacts be? Where are specific plans?

Project Roads

We are concerned that the developer appears to be underestimating the actual amount of road disturbance. In many instances, the existing roads are two tracks, or jeep trails, and have not been "constructed". So the use of the term "re-construction" is incorrect. Many have never been constructed!

In the Spring Valley wind project – ON THE VALLEY FLOOR - in a project area without rocks, boulders, steep slopes, canyons, etc. the area of initial access road disturbance is 68 feet, with sites later to be 25 feet. Yet here with CM, it is claimed that "project roads would be 20 feet wide with two 10-foot shoulders …" and graveled. We simply do not believe that this project in much more rugged, rocky and grueling terrain will have 20 foot wide roads – there will be many broader areas, huge roadcut gashes, pullouts galore. Or did Spring Valley really not need all the disturbance – but BLM just lets developers get what they want?

Just building the transmission line would require 19 miles of new roading (to a 12 foot width). Why can't any new powerline be buried underneath/alongside the access route? Yes, it is more expensive – but the

developer would get all kinds of loan guarantees. If construction cost were really an issue – the project would not be sited in this location in the first place. And if the utility buying the power were really interested in energy conservation, it would not buy power from such a destructive project located so far away from Las Vegas – where power loss in transmission will be maximized. Will the new line be RES's or the NV power entity? How are the two entities linked? Who really is the foreign developer RES?

The developer in the EIS refuses to even provide the exact location of the powerline. See EIS at 2-17.". So we have both a flexible wind development, and a flexible powerline, This must all be specified i***"The exact location of the transmission line and associated roads would be determined during the final design phase of the project*** n great detail in a Supplemental EIS. The Cottonwood Creek area has impressive canyon scenery, there are critical remaining sagebrush patches, and the powerline would have to cross steep rugged unroaded terrain. The new powerline and road cuts will be another huge visual, erosion, sage-grouse predator-promoting, and weed blight on the landscape. For example, the existing powerline by Highway 93 is visible from the tableland's eastern rim by the location of the Nevada MET tower, and from many areas near the rim in both states. A significant new road will co-occur with this new line, as well – further opening sesntive habitats to human intrusion.

The EIS makes many false assumptions. These include that the transmission line road would be located under the line. Of course, this does not take into account the steep, rugged rocky terrain the line would cross. It will be impossible to route a switchback road directly under the line. The lack of specificity in this flexible "leave the details until later" programmatic DEIS is designed to cover up the full degree of watershed, viewshed, cultural site, and habitat ruination that will result from the project. Much more detailed info is necessary so that the full degree and severity of impacts can be understood, and so the scale of losses to the public lands can be understood. See EIS at 2-17. The impacts on scenic, little roaded, roadless or other lands must also be fully analyzed, and these special areas must be carefully inventoried as part of this process –beyond the efforts made in the Jarbidge RMP process.

Blasting Disturbance

The absurdity of the EIS "flexibility" approach - where the developer is required to provide no clear upfront site-specific engineering diagrams and precise plans of road layout and actual degree and severity of disturbance - is vividly shown in DEIS at 2-18. Here BLM states: "Based on the final design and the results of geotechnical investigation, ***it may be necessary to conduct blasting of rock*** to reach the necessary slope and gradient of road". Of course it will! This EIS is written to purposefully mask and cover up the severe impacts. How much blasting will occur, and what will the impacts be? The DEIS is clearly a hollow, programmatic document with portions apparently more applicable to development on flat farm fields.

One look at the rugged rocky terrain could tell anyone that large-scale blasting will occur without a doubt. There will be massive blasting - and all such areas destroyed, and the degree and severity of disturbance and permanent ugly irreversible scarring, watershed disruption, loss of geological resources, and wildlife and rare plant habitat loss and fragmentation must be clearly defined and described, including with detailed plans and maps. A SEIS is required to lay this all out – so the full range of adverse impacts can be understood. Just how much blasting material will be used? How will this affect nesting, wintering and other wildlife habitats? And just how much blasting will be required to place turbine footings? Where will each turbine be located, and what will all impacts be – including to underlying strata, groundwater percolation, spring surface expression, etc.?

Laydown Areas

How many Laydown areas and work spaces will really be required? Where? What veg, soils, habitats will be lost? Although it is very difficult to tell from the poor EIS maps, it appears that an identified Laydown area near the southern Haul Routes would destroy one of the best remaining patches of low sagebrush on a lower bench area. The Laydown is surrounded by burned areas, but would destroy a large unburned block of sagebrush. This is only able to be discovered, and the site placed in context with recent fire impacts, during site visits where it is still very difficult to try to piece together just what might occur and where – and thus really understand the extent of critical resources affected. Vague and non–specific information in the DEIS is inadequate. It appears the southern Laydown area would maximize destruction to the remaining sagebrush. Right next to it is burned private land, choked with cheatgrass. Why not site it there, or out by the main road (Highway 93)?

Concrete Batch Plant

Much more detailed info on the batch plant must be provided. Full and detailed analysis of water resources including ground and surface water, rates of aquifer decline, flow rates, altered flows, on private, BLM and state lands is required for all aspects of this project. What is the water source? Is it a well that was very recently drilled – jumping the gun on finalization of the EIS? What are the specifics with any wells or water sources or pipelines to be used in any part of this? Depth? Production potential? Aquifer impacts? Spring flow impacts? Impacts to aquifers? Why haven't detailed atudies on ground and surface waters been presented?

Why is there no description of the setting of the plant – presence of native plant communities, sage-grouse habitats, proximity to riparian areas, etc.?

What will the effects of siting this industrial operation in this remote high elevation setting be? Including noise generated, air pollution, infiltration of pollutants into ground and surface waters, etc. ? What will impacts on viewsheds and sensitive species be? Why is this site chosen, and no others even analyzed?

Quarry/Rock Crusher

How much profit will private landowners receive from this and any other quarry – and all aspects of this development including all the haul route upgrades? What scenic rock formation, raptor nesting habitat, and other important resources will this quarry destroy? What will all noise levels be – and how will this impact watersheds, wildlife and recreation? Where will all quarry/gravel source material be taken from for all roads work including all haul routes, or any other aspect of this project? What impacts will this other quarrying and hauling have?

Wind Turbines

The EIS must provide more information on the specific turbine that will be used. Doesn't the wind developer really know anything at all specific to date – about anything? We find this hard to believe. Noise, size, and other elements may vary - as well as safety factors – between turbine brands. Will the turbines come from the Chinese windmill assembly plant by Las Vegas that Nevada politicians have promoted?

How much dynamite and blasting will be required to position turbines and create "loose rock"? Will 2.1 acres be cleared in association with each turbine? Will lands be flattened? If so, how much blasting, bulldozing, etc, will be required, and where will this all occur? How much blasting would be required to create a crater to site the turbine 30 feet deep in bedrock over 2.1 acres?

The EIS states that the "requirements for walking the crane would set many of the design parameters for the project roads". The locations of all of this crane walking– and thus the full battery of impacts – must be laid out in detail in a Supplemental EIS. What are the requirements of "walking the crane" and where and how severe will all the road disturbance be??? This is a programmatic EIS lacking in necessary site-specific details. It is also clear that the EIS's obsessing over only a supposed exact acreage of direct disturbance – as is done in Chapter 4 - is likely a significant underestimate. If the details are still so vague and uncertain, how can BLM have derived exact acreages of disturbance? Why can't a helicopter be used to haul at least some material? Are there helicopters large enough?

Detailed information on tower type, and design features, must be provided. Critical and complete information on wind - including direction, speed, extremes and lulls over the course of the day and year - is necessary. What degree of disturbance is necessary to prevent safety hazards from tower failure by designing the turbine towers and foundation to withstand wind speeds of 100 mph at the standard height of 30 feet? What are the engineering standards that should be applied in this seismic zone? Much more intensive study of seismic conditions and earthquake potential must be conducted. We fear the EIS is covering up the seismic conditions.

If the actual turbine capacity may vary depending on type selected – does this mean there may need to be more turbines? Will more turbines be placed on private lands without NEPA? On BLM lands with a minimal DNA? Or incrementally on BLM lands as was done with the MET towers?

We understand that giant tractors will have to pull turbine trailers up the steep incline of the southern tableland's eastern face under both options.

Many elements of worker and public safety are not adequately detailed, especially in the harsh and rugged setting, and with the greatly increased road network.

Underground Electrical Collection System

Full and detailed mapping and identification of all soils, specific vegetation communities (old growth mature mahogany/sage/aspen/unique community assemblages), scenic rock boulders/outcroppings – and other important components of the environment must be provided. Burying lines 4 feet or deeper underground in the rugged rocky landscape will cause extensive damage. It is impossible to understand the degree and severity of impacts with the vague uncertain statements of the DEIS: *" … would be buried in a manner that minimizes surface disturbance (e.g. along roads or other paths of surface disturbance to* ***coincide where possible****"*. DEIS 2-23. Since the specific location of roads and all areas of surface disturbance are not provided, it is impossible to understand these impacts, too. Why can't lines be laid across the surface?

Photos used in the EIS to illustrate impacts to the reader show lands completely unlike the project site. The photos show nice flat farm field-like areas with no rocks – a far cry from the real world on China Mountain. Just to put in MET towers (as on state land) scenic boulders were blown apart. At several of the MET towers, explosives have been used to blow up rocks just to moor towers. How much blasting will be involved for all parts of this?

2-24 states " in location such as wetland crossings, boring instead of plowing or trenching would be used". Where are all of these stream and wetland crossings going to be? What drainages will be impacted, what is their current condition, what adverse impact will all of the disturbance have on aquatic species, sage-grouse brood rearing habitats, etc? Will boring puncture underlying strata and alter surface flows? The streams and water sources here are small, and already under significant stress. Will this decrease perennial flows?

Transmission Line

Why can't this line be buried, too – and follow existing roading to the maximum extent possible? Why are there no alternative routes and distances provided?

2-16. Where will the overhead transmission lines be located exactly? What will be the routes of the underground lines? What is meant by locating trenches in or near access roads? Will they be offset by a hundred feet? Ten feet? Why can't they be placed **in** the roads? How much blasting will be involved?

A full evaluation of the effectiveness (or lack thereof) of raptor anti-perching devices must be provided. Full and detailed analysis of the impacts of not only the transmission line – but also all of the site disturbance – on promoting avian nest predators must be provided. A recent graduate student thesis found carcasses in the Jarbidge region were very rapidly scavenged, likely indicating abundant scavengers already - many of which may also prey on sage-grouse nests, eggs, or adult birds, and that also thrive on livestock carrion, supplement feeding, waste and highly disturbed areas. The relatively undisturbed china Mountain area will suffer increased mesopredator activity.

How will this or other lines increase avian collisions and death/injury? Please see recent Stevens Masters Thesis (work conducted in Browns Bench area), citing Beck study in Idaho that documented **significant sage-grouse collisions with transmission lines.**

Any transmission line in the area must also consider the impacts on waterfowl that may be using Salmon Falls reservoir or other waters, and migrating birds and bats of all species. This is an added hazard and source of mortality to volant species.

A tremendous concern is that the night lights that will draw migrants into hazardous turbine and nearby powerline areas. Specific studies during migration seasons that determine avian flight paths and use patterns in the specific path of any new transmission line must be provided. The new powerline will run for a considerable distance on the high ridges – amid turbine strings. So birds possibly avoiding turbines may collide with the line.

BLM has not shown that it has complied with BLM Instruction Memorandum 2010-077, LR 2000 Data Standards for Renewable Energy Cases (Mar. 16, 2010). Under IM 2010-077, BLM must collect detailed data on resource conflicts for "[e]lectric transmission rights-of-way cases that facilitate, support, or have capacity to distribute power from renewable energy projects." IM 2010-077, Appendix, *Revised Data Standards for Renewable Energy Cases*. BLM does not appear to have collected the required data for the transmission line and associated generation that the various ROWs will facilitate and support. Acknowledging this obligation and disclosing resource conflicts data in the DEIS is particularly important, since it provides BLM with better information to evaluate potential alternatives.

Substations/Interconnect

What noise, lighting or other disturbances will these entail? No new fencing should be permitted. How will these provide increased predator perches and other hazards to wildlife? How will these disrupt the viewshed? Why can't these be buried – along with lines?

How much road upgrading would be done to the Interconnect area?

If the substation is sited in an area with existing livestock disturbance – where will livestock disturbance be shifted to/further concentrated? More weed zones will be created with shifted or altered livestock disturbance zones.

Is the area visually prominent, and will the substation be a visual eyesore over a large distance? Put any substation down by Highway 93.

How will any rehab occur - with any of the disturbed areas – with continued cattle and/or domestic sheep grazing disturbance. Why isn't BLM requiring the lands disturbed be rested for a minimum of 10 years to promote re-establishment of native species?

Will the same rehab standards, seed mixes, livestock management schemes, etc. apply to state and private lands as to BLM lands throughout all parts of this project? If so, how will they be enforced? Might additional development occur on these lands? If so, what and where? Will only local native ecotypes be used in any and all efforts?

MET Towers

If the 260 ft. tall MET towers have to have a foundation 16 feet in diameter and **30 feet deep**, isn't it certain that the turbines themselves will have a much greater depth disturbance area than the EIS describes? See DEIS at 2-27. So what does this mean about the tremendous depth and disturbance that will be required to blast and destroy bedrock for keeping the much taller turbines upright? Or is this a mistake in this programmatic EIS? Where will these be located, and what will the impacts be?

O&M Facilities

Why does the developer need these huge O&M facilities? Why can't nearly all of this be located on degraded lands – with electronics communicating any need for maintenance? It is absurd to permit two 4500 sq. ft. night lighted security chain-link fenced compounds - just for the convenience of the developer. Have one site, down by the main road, instead of building a city on the mountain. It is absurd to pretend that visual and disturbance impacts will be minimized by "painting to blend in". How in the world does one "blend in" with old growth low sagebrush a foot or less in height amid talus striping? Is part of the reason for siting one of these high up on IDL land so that the state can get more funds? If that is part of what is occurring – just give the state more money for something else, and don't deface the mountain even more with such a facility. Why are wells needed? Just how much washing is there to be done? Will the state or private entities also be using these sites for other industrial, water pumping, communications towers, or other purposes? What other potential or foreseeable development or use might occur here?

It is our understanding that increasingly plants can be monitored remotely – and likely there will be far fewer supposed permanent jobs from this development. Please analyze such impacts/changes that are likely over the life of the project.

Water – and EIS Silence on the Proposed Water Storage Battery

Why is there total silence in the EIS on the proposed water storage battery reservoir system, as reported in the *Times-News* in 2009? Is the developer just being silent on this for now – realizing that the use of water, and the severe disturbance that would be caused, would elevate the controversy over this greatly destructive wind farm even more? What would the water source for this be, and who controls the water rights?

What and where is the off-site private water source for water? Is it Antelope Springs? Is it an area torn up where a new large well has been drilled on top of the tableland? What will use from this source do to vegetation and aquatic biota relying on surface expression of the shallow aquifer water at present? How will this impact water both at the well site and in potentially connected springs? The full range of impacts must be identified. Private lands are interspersed in many areas by and in the project, and flows are quite small at many of the springs, which have been greatly altered in some areas with flows nearly killed by pipelines and livestock trough developments. Riparian areas in many watersheds - especially the springs - are highly degraded – and further reductions in flows and habitat alteration caused by the Project will have significant adverse impacts including likely killing all surface flows of some of these sensitive areas.

Stormwater

Before any part of this project can be understood in relation to stormwater runoff-discharge – much more detailed information, diagrams, engineering plans and other info must be provided in a SEIS. Potential contamination of water runoff with arsenic from crushed rhyolite gravel, from herbicide use as weeds proliferate (just how much herbicide will be used as cheatgrass and aggressive thistles proliferate across the landscape?), and other impacts, must be examined in site-specific detail. What herbicides will be used? What will their impacts be to soils, waters, native biota, the public? Where and how will they drift?

The loose, uncertain, description of "flexible" siting and development in the EIS provides no basis for understanding the severity of impacts – to runoff, or to native biota, or the movement of pollutants downstream into Salmon Falls Reservoir or other waters. Many of the drainages on the east side of the tableland connect with Salmon Falls reservoir during spring snowmelt and runoff events.

Hazardous Substances

This section is lacking in any substantial information. A full and detailed description and analysis of adverse impacts of all hazardous substances used in any part of this project must be provided. This includes toxic or hazardous or flammable material in turbine components, and herbicides used to try to control weeds over the vast Footprint of disturbance – from the Bruneau desert road crossing the Air Force Bombing Ranges and its upgrades to efforts to rehab project-disturbed lands that also suffer chronic disturbance from cattle and sheep grazing and trampling. A full and detailed plan must be provided in a SEIS.

Haul Routes

The major road upgrades necessary for this industrial development will result in much more traffic and human disturbance on the north and south inbound haul routes.

Map Figures 2.4.2 2.4-3 of the southern inbound haul routes represents that portions are existing roads. Yes, there may be some kind of a road present – but mammoth changes will have to be made to haul wind turbines in many areas in this steep, rugged terrain. Detailed mapping and analysis of specific road cut locations and impacts, zigzag cuts through bedrock, and many other impacts must be clearly laid out, mapped, and full engineering and impacts info presented for all route lengths in a SEIS.

There are photos of Option 2 and the existing "road" near Cottonwood Creek. Options 1 and 2 both would tear apart highly scenic upper slopes in a panoramic setting.

Mapping of both Options in the EIS (2.4-2, 2.4-3) would require much more roadcut and fill than the mapping represents.

Indeed, as mapping indicates, there is some "horizontal geometry correction needed", and "existing road condition varies". Detail where, how and all impacts to soils, waters, watersheds, microbiotic crusts, rare species habitats and populations, recreational uses and enjoyment, scenery, etc. that will occur from all of this "horizontal correction".

Mapping in any detail for the haul routes does not continue into Idaho – yet elsewhere in the DEIS, there is discussion of many roading and other impacts to Rocky Canyon – a proposed Wild and Scenic River. It is impossible for a reader of the programmatic EIS to determine where and how roading, turbines, etc. might impinge on this potential WSR or any other drainages in the Project area. Plus, China Creek, and Player Creek should similarly qualify as WSRs – yet inexplicably have not been determined suitable. Full evaluation should occur as part of this process.

Please identify and describe in detail the sources and the effects of gravel removal for all haul routes - for the life of the project.

Why are such large staging areas needed? The southern Staging Area is located in a larger remaining block of unburned sagebrush in a flat area that is important for sage-grouse use.

The terrain is simply too steep and rugged to build the southern haul routes in, and the northern inbound haul route would permanently impose severe ecological impacts over a huge area of the Jarbidge including amid slickspot peppergrass habitat. Once upgraded for the wind developer, it is likely to be turned into a major cattle hauling and semi-truck route promoting large-scale year-round disturbance.

Why in the world can't the Outbound haul route be used for all parts of this project? Why can't a route coming down through the cheatgrass/crested wheatgrass wasteland and maze of roads on BLM land south of Glenns Ferry or Hagerman be used? Is it because the local ranchers will not then reap as many benefits from deluxe cow hauling roads and gravel sales to the developer? And why can't the entire Wind Project be moved there? The Draft RMP shows ample wind in the northern Jarbidge. In fact, this is a perfectly reasonable alternative siting that BLM must consider. Isn't one of the potential new inter-state east-west powerline paths to run through the northern Jarbidge?

Until BLM requires much more detailed and specific engineering plans - it is impossible to understand just how many dump truck, concrete truck, etc. vehicle trips will occur --- will it be 15,130 – or will it really be double or triple this?

All sources of disturbance and mortality – including vehicle mortality – must be examined. What toll will this all take on native wildlife? Watersheds? How much carbon and other pollutants will be released - in all parts of this project, including turbine manufacture, mining of rare earth minerals in China for the turbines, and all aspects of this ecologically disastrous undertaking?

While BLM claims that roads will be decommissioned, it will be impossible to restore the lands to their previous condition. What would occur with roads that were jeep trails in part before the project – and would be massively altered?

There is no certainty that necessary reclamation will occur – the wind developer has an "out" big enough to drive a turbine truck through. See DEIS at 2-35 "*roads decommissioned to original contours would be regraded ...* ***if the extent of cut or fill make such regarding practical***". Just like all parts of this project, decommissioning of this ecological disaster is highly uncertain, and the developer can skate away from many of the rosy promises of the EIS by claiming they are not "practical". Each and every segment of road must be detailed for rehab.

The EIS greatly fails to detail all of the disruption to public uses and access that will result from this project. Stipulations and supposed controls are readily waived by BLM when faced with the political power of wind developers – case in point: Spring Valley Wind Project where wildlife protections (for burrowing owl) were waived for the developer's convenience.

Hazardous Substances

Where is the information on hazardous materials and pollutants that may be involved in construction or operation of this project? There are PCBs in transformers, and many petroleum products with hazardous ingredients may be used in this project.

The Footprint of the hazardous materials, and their potential impacts to the environment when accidents occur must be provided.

For example, a direct-drive permanent-magnet generator for a top capacity wind turbine would use 4,400lb of neodymium-based permanent magnet material. See: http://www.dailymail.co.uk/home/moslive/article-1350811/In-China-true-cost-Britains-clean-green-wind-power-experiment-Pollution-disastrous-scale.html#ixzz1OoCXNTn5

Neodymium is highly toxic. It is imperative that specific type and materials of the wind turbine brand and model that will be used be known. A *Prevention Link* article lists the following:

BEFORE YOU BUY A TURBINE
Any organization considering an investment in wind technology should be sure to understand the potential hazards. Wind turbine technology is evolving and can be very complicated. According to the American Wind Energy Association, several factors should be considered before you invest in wind technology:

The supplier's customer reference list (the longer the turbine has been in use, the better)
Warranty length and coverage (the industry standard is five years)
Whether the turbine and tower have gone through a reliability test
Who provided the reliability test and what the results were
How long the company has been producing turbines, especially the specific model you are considering
How many of the turbines have been sold and how many are still running
How frequently the model has been redesigned
Problems customers have encountered and how were they dealt with

A risk assessment of all hazards associated with the specific model of turbine must be conducted. Particular turbines pose different kinds of hazards, and all hazardous substances associated with turbines, batteries, etc. to be used on site must be critically examined in an assessment that must be provided in a SEIS.

In review of general safety considerations applied to facilities in California:

Safety issues related to wind plants could arise from tower or rotor failure. If a wind turbine experiences excess speed, material fatigue, excessive stresses, or vibration from seismic ground shaking, there is a potential for a rotor blade to crack or dislocate from the turbine tower. If a blade dislocates from the tower, the thrown blade could travel several hundred feet. Blade failures may occur due to extremely high winds and excess rotor speed.

Excessive static stress, material fatigue, seismic activity, or ground settling could cause tower failure …

Please provide much more detailed information on seismic potential. There are obviously faults in the area. Witness China Creek Waterfall! Blasting craters to site turbines may disrupt underlying strata – promoting instability along with alteration of groundwater flows.

The wind developer has encouraged OHV interests - to win support for the development – thus such safety concerns must be fully addressed for the public as well as worker safety. Moreover, turbine or powerline or other failures could cause blazes and wildfire.

The weight of water from a potential "battery" reservoir may trigger seismic instability, as well. All of this must be examined, including cumulative impacts.

West Nile Virus and Other Industrialization Concerns

Alteration of drainages from roads, gravel pits, and the industrial complex may create pools or puddles of water that provide breeding grounds for mosquitoes that are West Nile disease vectors. Disruption of drainages, elevated road berms, culverts and other elements of this landscape industrialization may prolong periods of stagnant standing water. Livestock impoundments and water pooled, trampled hoof print pocks by springs and ponds, and water troughs as well, also provide mosquito habitat. How will this project increase West Nile potential? Including by potential killing of birds and bats that may consume mosquitoes.

What is the basis for the minimal eagle nest avoidance area? A 6 to 10 mile avoidance zone must be applied. FWS in Oregon now requires a 6 mile avoidance.

While there is some limited discussion of noxious weeds, there is no valid analysis of the feasibility of actually controlling invasive species that will especially thrive on wind project disturbance in a grazed landscape– especially aggressive cheatgrass, bur buttercup, weedy mustards, etc. across the project area. There is no baseline date presented so that a reasonable decision can be made.

Most of what might be done as adaptive management should be done at the beginning. The wind company has shown itself incapable of adaptive management - being unwilling to change the location no matter how severe the environmental conflicts are. If the developer won't listen to firm science and resounding evidence of a plethora of adverse impacts here, we have little hope that any proper "adaptive" changes would occur. Of course, necessary adaptive changes will never be allowed to proceed as will be needed – due to the political power of developers/ranchers that will prevent any important adaptive actions from happening.

What specific thresholds will be established, with rocksolid to trigger shut downs and removal of turbines and the entire plant - if specific mortality or adverse environmental changes occur? These should be clearly specified, and triggers put in place, as part of the "adaptive management" scheme.

If proper siting guidance was followed, the developer would find another site, where lighting scenarios and other most other mitigation was not necessary. The available science on this is: Don't site your facility on top of the best remaining sage-grouse habitat, or in the path migrating birds or bats, and lighting will not be as big an issue.

Why is there no meaningful noise mitigation? Why is there no detailed noise modeling? How will noise change, or be more or less audible, with alternative siting? With wind direction change? Over the course of the year?

Discussion of Alternatives Reveals RMP Protections to be Stripped and Gutted for RES Industrial Complex

The alternatives discussion reveals alarming information in sections 2.5.3.1, 2.5.3.2, and 2.5.3.3 (2-41 to 2-43). BLM is considering stripping and gutting RMP protections for visual resources, special status species and crucial wildlife habitat, and special habitats like riparian areas.

Regarding amending the Visual Classes of the Jarbidge RMP: There is already so little land in more protective categories class in the Jarbidge that the loss of ANY land from such protection in this area is highly significant, and is not in the public interest.

The DEIS at 2-41 states that: "*BLM has long interpreted the threatened, endangered and sensitive plant and animal restrictions in the Jarbidge RMP as guidance, and not as strict requirements. In a recent court order (February 26, 2009, WWP v. Dyer et al., CV-04-181-S-BLW), the court found that BLM's interpretation related to protection measures for special status species was erroneous.* ***In this case (China Mountain] BLM is proposing to modify or eliminate the seasonal occupancy restrictions that restrict major construction and maintenance work"***. This reveals how little BLM really does to protect sage-grouse or public land from powerful interests – unless litigation is filed and successful. Interior has no real intention of preserving sage-grouse and other native species – as BLM's interpretation prior to a legal challenge was that the restrictions for rare species were pretty much optional. Just like we fear any supposed "protections" with this project will be handled. BLM must examine its own very poor track record here as part of the uncertainty associated with any claimed development, operation, or mitigation action.

BLM/the developer is proposing a project that would violate the 1987 RMP (and therefore be illegal), as well as the RMP as amended by the 2005 Programmatic Wind PEIS. See DEIS at 2-41 to 2-43. BLM should have rejected the develop proposal, and several other of the alternatives. Instead, it has sunk endless hours of time into an EIS process where alternatives would strip or gut sage-grouse, riparian area, visual and other protections. Here, the discussion is confusing – see DEIS 2-43 for example - are "special habitats" only riparian areas, or upland areas too?

Stripping the RMP protections, and building all or portions of this project and causing irreversible impacts undermines and predetermines the outcome of the new RMP planning process. This is also a violation under NEPA, and further reason that the developer's proposal and the various minor deviations in the alternatives should have been rejected immediately.

This further shows that Jarbidge BLM will in reality never require industry to abide by the weak and uncertain laundry list of "BMPs" and readily waived "stipulations" and other supposed restraints and minor mitigation put forth in the China Mountain Wind EIS and Appendices. Jarbidge has a long history of ignoring or stripping environmental protections for wildlife, recreation, watersheds, especially for the benefit of the very same private parties that are involved in the wind farm – ie. various Brackett and other powerful grazers. If BLM considers restrictions laid out in its RMP as optional and able to be changed any time a developer comes along – then this wind EIS's BMPs, stipulations, and other promises won't be worth the paper they are written on. This provides no certainty or effectiveness in addressing or "mitigating" impacts.

BLM immediately follows its DEIS discussion of hatcheting RMP protections with talk of "mitigation" (DEIS at 2-43), and pointing to Appendices like 2B. Mitigation common to all Alternatives is minimal,

loose, uncertain and would be greatly ineffective at protecting rare species habitats, waters, and other resources. The Appendices include things that would be done normally to keep developer costs down – like try to avoid the most extreme rocky areas. But in many areas at China Mountain "avoiding rocky areas" would then mean greater destruction of mountain mahogany on deeper soils, or sage-grouse nesting habitat on deeper soil. So what is really being mitigated here is developer costs – not species habitat impacts.

Moving a road a bit at a stream crossing in an area that should not have any new or upgraded roading in order to continue to limit disturbance to watersheds and wildlife habitats – is not "mitigation". What will be done to actually mitigate any new road and crossing?

Guy wire towers have serious adverse effects when birds collide with wires. Some of RESs existing towers have no avian flight diverters at all – showing a disturbing lack of concern for avian collision risk on the part of the developer. If this developer cannot even act responsibly and take minimal inexpensive precautionary actions, we fear that all the other much more expensive promised DEIS development precautions will be readily abandoned once the ink is dry on a ROD or NTP here. This too must be considered as part of risk assessment for all aspects of the development.

Fire "Mitigation"

Thefire mitigation is minimal – and again shouldn't really be considered mitigation. Shutting turbines down during a fire is just common sense – not "mitigation".

This project will increase weedy exotic annuals – creating flammable fine fuels that will cause fires to flash rapidly across the landscape. Wildfires are a significant hazard and can result in substantial damage to land and imperiled species habitats. Hot dry summers, and high-speed wind patterns, create optimal conditions for wildfires. Combustible cheatgrass can be easily ignited and will burn hot and fast, especially during high wind conditions. The project site is in an area highly susceptible to wildfires, and will significantly increase fire risk.

How does turbine operation promote fire risk? See Wyoming Game and Fish Department 2009 – discussing how turbines may alter site microclimates and promote drying. Hotter, drier sites are prone to cheatgrass.

The tremendous increase in roading and human use of the roads will also greatly increase wild land fire risk here. A comprehensive risk assessment must be conducted. We are greatly concerned that BLM will use this as an excuse to impose vast areas of exotic or other fuelbreaks. If so, those harmful impacts must also be disclosed in a SEIS.

BLM Criteria for Alternatives

We are greatly concerned that BLM discarded alternatives by unfairly applying the criteria on page 2-1. The EIS does not provide sufficient information to make determinations on various alternatives that it claims to be technically or economically feasible. There is not adequate information and analysis to determine what may or may not be feasible. In fact, there is a tremendous dearth of wind characteristic and project engineering info. How is: "Did the alternative cause more, less, or the same level of environmental effects than the Proposed Action for at least some resources" an Alt. criterion? What does this mean? And if these are the criteria used, then certainly a much broader range of alternatives could be considered.

BLM excluded WWP from what it claimed was a collaborative process here, and that we repeatedly asked BLM Managers to be able to participate in. The agency's own scoping information said this was to be collaborative. Instead the process has been driven by bias towards the developer's interests and meetings behind closed doors.

No Action Alternative

Much more detailed site-specific baseline environmental data and analysis on all aspects of the environment are needed to fully evaluate the No Action alternative. This is the case throughout the analysis of the DEIS, and Affected Environment and Impacts sections. What exactly is the current Baseline – both the condition of environmental resources, and severity of threats to resources? What is the management scheme that is being applied? Is the management scheme adequately addressing serious environmental concerns, or are many conditions getting worse? If wildlife habitats and populations, perennial flows of surface waters, integrity of native plant communities, etc. are on a downward trajectory already, what would they be predicted to be like without the added disturbance and destruction of the industrial wind farm over the next 30 years? With the disturbance? Please fully consider scientific information provided in the Jarbidge AMS (Analysis of the Management Situation) on existing harms and severe ecological problems in this landscape.

Alternatives Analyzed in Detail Are Very Similar

BLM fails to provide a broad range of reasonable alternatives. The alternatives that are examined are all minor deviations on the same theme, i.e. "give the developer what they want – no matter how damaging the siting". See EIS at 2-3. Some Alternatives are Phased, and others have minor differences in turbine numbers and siting. There is no variation in northern inbound haul routes – inexplicably. Why, for instance, can't the turbines be hauled in from Glenns Ferry or near Hagerman, or elsewhere through weed wastelands?

It makes no sense that the southern routes are even needed at all – as the inbound northern Monument Springs road and "main" road through the project site will be turned into the equivalent of a major state highway anyway – so any proposed southern haul route turbines could be hauled in that way.

Are the massive expansion and upgrading of the various access roads including the 90 mile Bruneau Desert route part of sweetening the deal to gain large ranching operators support for this development? Full adverse effects on sage-grouse, pygmy rabbit, native plant communities, etc. of Simplot and other grazing operations along this route must be provided. We are also concerned that the southern routes and the location of the powerline there may be positioning the Nevada surrounding lands for other development – additional turbines or wind farm sites? Mining - there is a potential Copper mine west of Contact – will there be others? Or could this southern route be tied to potential other uses for the ROW once it is acquired? Where would SWIP's northern leg, if built, intersect with the southern routes or new powerline?

Why are there no alternatives in construction, operation, or maintenance of the facility? (DEIS at 2-8).

Why isn't there an alternative that requires immediate decommissioning/removal of any turbine, or turbine array/string, where any eagle mortality may occur during project operation – for example?

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APPENDICES. Information found in the Appendices forms the basis for understanding the adequacy of actions and evaluation under all alternatives, and understanding the lack of real protections in the

Appendices is necessary to understand the severity of the environmental effects. These often loose and meager measures and limited information found in Appendices 2A through 4B expose how flawed this DEIS is, so we are discussing them in some detail as part of our comments. BLM cannot wave its hands in the direction of the Appendices, or the inadequate old WIND PEIS from which many of the measures derive, and claim all will be well. Much information in the 2005 Wind PEIS is old, outdated, or now known to be erroneous. For example, it wasn't even known then that bats die from barotrauma.

Appendix Design Features Common to All Alts.

Appendix 2A is a grab-bag of common sense actions or legal requirements. The minimal measures here in no way, shape or form minimize or adequately mitigate irreversible harms of the development. However, it is important to review these to aid understanding of the how damaging the project will be, and how uncertain and ineffective actions claimed to ameliorate harms would be.

There is no guarantee that the public will be adequately involved, or that adequate NEPA would be conducted on, any changes, modifications, etc. with the project (2A-1 to 2A-2). BLM routinely issues waivers of protective measures for wildlife in Wyoming for Oil and Gas energy – and the same is highly foreseeable here for industrial wind. The Jarbidge BLM has a long history of hiding actions from the public, and bending to powerful interests. Example: Livestock trailing permits kept secret; issuing amended Annual Grazing Plans *ad infinitum* until any understanding of the original Plan is lost.

There is vague loose wording that always gives industry an "out" to get BLM to waive compliance or look the other way. Example: "*All control and mitigation measures established for the project in the POD and the resource-specific management plans that are part of the POD shall be maintained and implemented* … ***as appropriate"***. 2a-3. The phrasing **"as appropriate"** means the action does not have to occur if the developer complains too much and BLM then realizes the action may not be appropriate.

There is no requirement that the public is notified of the monitoring outcomes, or that specific actions be triggered. 20 eagles could be killed, or hundreds of migrating western tanagers or Brewer's sparrows, along with thousands of bats including spotted bats, or Brazilian free-tailed bats, and other rare species – and the public would be kept in the dark. Industry cannot be trusted to fully monitor and report fatalities. An entity that reports directly to BLM, and provides rigorous daily mortality monitoring in all areas of the project site with info automatically displayed on a publicly available Website, must be used. Remote-controlled cameras should also be placed that can be used to scan the ground around all turbines daily to look for carcasses, as well as ground searches by human observers and trained dogs, over the entire life of the project.

2A-3 claims monitoring shall be required to "ensure that potential adverse impacts of wind development are mitigated". What happens with impacts that cannot be mitigated? What actually is meant by mitigated – just that the proponent do something – even if it is not very effective? There is no critical analysis of the effectiveness of any of these mitigation measures, alone or in combination – at this highly biodiverse site. This must be examined in a SEIS.

2A-3: After conducting surveys, the developer is supposed to design the project to "*avoid, minimize* ***or*** *mitigate impacts*" to rare and imperiled species. The use of the word "or" only requires some paltry bit of effort to "mitigate", with no certainty of effectiveness. Will turbine mortality be considered mitigated somewhat if the turbines kill 10 golden eagles a year, instead of 12?

The entire Project Area is a regionally significant important, sensitive and unique landscape. Yet there is no honest evaluation of its biodiversity and scenic beauty/high recreational values and other attributes

throughout these lists – that in reality don't really mitigate, but instead try to legitimize and paper over harm.

The Operator is also supposed to identify important, sensitive, or unique habitats … 2A-3. The entire area is important, sensitive and unique, and should not be developed. Why has this not been indentified and analyzed in full detail? The turbines, roads, facilities, etc. are not being located in the least sensitive areas. In many cases, the EIS is so vague that it is not known if a particular turbine will destroy ancient mahogany groves, old growth bonsai low sagebrush, or a beautiful scenic rhyolite outcropping. There is no basis in the current EIS for understanding just what will be destroyed, and where, or the degree to which any mitigation would actually occur and be feasible and effective for all parts of the project – from siting of each turbine to every dynamited road cut. See 2A-3.

The entire Idaho BLM-managed area has been nominated for, and is under consideration for designation as an ACEC included in the new Jarbidge RMP. This wind EIS effort is aimed at thwarting the new RMP's outcomes and full and fair consideration of alternatives and environmental protection necessary to maintain a viable population of sage-grouse in the Jarbidge.

The turbines are strung all along ridgelines – which are landscape features known to attract raptors – in **direct violation of BMPs** at 2A-4 (7, 11), as WWP site visits have confirmed. This shows how false claims made in the EIS really are – Example DEIS at 2-43 claims 'the conservation plan identifies commitments on behalf of the Applicants to protect and conserve sage-grouse habitat within the project footprint and through compensatory offsite mitigation …". It is dishonest to claim one is protecting and conserving habitat – when in fact it is being destroyed – and in many instances the developer is **maximizing** rather than minimizing impacts –as with siting turbines on low sagebrush ridgelines. An honest SEIS must be prepared.

BLM is proceeding with an RMP amendment to strip protections for raptors and other imperiled species that are then being claimed to be protected under meager BMPs described at 2A-4 (7, 11). Wells RMP protections are listed for wildlife at 2A-5, 2A-6, such as winter and other seasonal use and disturbance prohibitions. These are greatly inadequate, and full current standards must be applied.

The DEIS mentions 18 raptor nests, crucial sage-grouse, deer and pronghorn winter habitats, antelope kidding, raptor nesting, crucial mule deer winter range, crucial pronghorn winter range, pronghorn antelope kidding areas, greater sage-grouse leks. We note that the distances and periods are greatly inadequate in the old RMP – a five mile minimum avoidance zone must be used. The distance of 0.31 miles is now known to be greatly inadequate – and it was the intent of the RMP at the time finalized to protect grouse based on current science – so updating the science and applying avoidance is required. Much of the entire high plateau is sage-grouse brood rearing, and must be avoided May 15-August 15. Significant areas overlapping turbines areas are crucial winter habitat – and must be avoided Nov through March 15 as there is very important winter habitat – including throughout the Nevada portion and powerline, road network, etc footprint - and extending into Idaho. See Young et al 2009 mapping showing Nevada and neighboring Idaho winter use has long been known. We stress that MET towers were placed near the NV border in both ID and NV interfering with bird use amid this critical winter habitat, and connecting habitat between populations.

Even a cursory review of the wildlife protections listed in Appendix 2 shows how very wrong it is to even consider placing a huge industrial wind farm in this site – and even claim to be able to "mitigate". How in the world would this all be done – especially if necessary 5 mile or greater sage-grouse avoidance zones were applied – as supported by current science? See Doherty et al. 2010 Core Area Mapping. Or 6 mile or greater golden eagle nest avoidance areas?

What will be the visual impacts of flight diverters to grouse and other wildlife? Might the diverters cause birds to avoid portions of the area with diverters altogether? A recent Thesis shows that birds still collide to some degree with marked fences. There is no need for any new fences with the project - remove livestock grazing from the Project Area, or pull it back to existing pasture fences, and remove fences.

3km. is not adequate to protect sage-grouse.

It is impossible to build an industrial wind project in this area, and not contribute significantly to ESA listing – the Project violates TES restrictions at 2a-9. "To ensure that the action does not contribute to the need to list a candidate species or to protect habitat for a candidate species". BLM cannot consider a wind project sited here, and not violate this protection. A risk assessment must be conducted, and this must be honestly addressed. There is no evidence that one, or all of these BMPs, would ameliorate the severe impacts of siting a wind facility in this critical area.

RES's insistence on developing an industrial wind project in this area is Exhibit #1 in why sage-grouse need to be listed under the ESA. A full analysis of the serious risk of this industrial development wiping out the only remaining viable population of sage-grouse in the Jarbidge and portions of Nevada must be undertaken, and included in a SEIS.

2A-9 and 10. It is not possible to adequately detect nesting birds by allowing 14 days to elapse between time of surveys and surface-disturbing activities. Nests would certainly be destroyed. Plus, this minimally covers only the immediate area being disturbed, it does not prevent noise, harassment and other activity from disturbing nesting birds in the adjacent areas. All of this disturbance and activity is very likely to make all nests in the general area much more vulnerable to predation or loss. The full Footprint must be examined and protections applied.

There is no certainty associated with 2A-4 (9).

If construction work occurs during sensitive periods, disturbance of wildlife is certain.

What does the crested wheatgrass seeding have to do with this? What alteration of sagebrush through herbicide, burning, etc. is involved in this? Is BLM proposing further livestock forage projects/fuelbreaks that destroy sagebrush and stimulate weed invasion? All direct, indirect and cumulative impacts of this added habitat destruction must be provided.

2a-10. What is meant by a "chemical toxicant", and what will be used here - herbicides? What are these chemicals toxic to?

There is greatly inadequate information on exactly where all roads, turbines, and all other parts of this project will be located. So it is impossible to understand all of the watershed and riparian processes that will be disrupted, the perennial or intermittent flows altered or reduced, and springs/drainages further dried up and desertified through alteration of runoff, flows, shading, protective vegetation that traps snow, disturbance to snowbanks, changes in snowbank deposition, etc.

How will BLM deal with protections in one RMP but not others – For example, Cottonwood Creek is a redband trout stream in NV. No occupancy is to occur under the Jarbidge RMP, but not the Wells RMP. Will BLM maximize damage by keeping the lowest bar of protections in place – with different standards in different areas? What are all the various Am. Fisheries Society and other BMPs referred to in 2A-10-2A-12? What does an AFS document from 1982 actually require?

A full and detailed groundwater, aquifer and spring study must be conducted as part of this process, and results presented in a SEIS. There are myriad ways that this industrial development will impact and impair surface waters and also adversely impact ground waters tied to surface expression of springs.

The BLM weed documents referred to in 2a-12 are greatly inadequate, and allow use of very harmful chemicals - including known carcinogens like Round Up.

Where are all stream channels and streambeds that will be impacted? Will BLM protect intermittent and ephemeral drainages to the same degree as perennial ones? If not, what actual protections will be applied?

The DEIS would strip RMP and diminish protections, so why is BLM failing to fully lay out and inform the public about what is actually a tremendous loss of visual resources here? This makes no sense. The Visual simulations provided to date with this EIS are greatly inadequate.

Please explain how one “integrates” a 430 foot tall structure/spinning turbine object, or other site elements like a 4000 sq. ft. building or high voltage transmission line in 6 inch tall low sagebrush in a windswept ridge. Just how will his be blended into the surrounding landscape? BLM knows that is impossible here – so don’t mislead the public with happy sounding promises that can never be fulfilled. An honest SEIS must be prepared.

VRM standards with the Wells RMP are based on old “sagebrush is a sacrifice zone” mindsets. Updated full and detailed VRM analysis must be conducted as part of this process, and the RMP amended to provide protections of VRM II and/or I for the project site– along with the denial of any wind farm ROW here.

BLM is planning to strip protections from one of the very few visually protected areas in the Jarbidge – so what is the point of all the claims about visual resources?

Flashing strobe lights are highly annoying – and will be visible for 50 miles or more. 2A-13. If there were not all manner of facilities sited here such as deluxe O&M buildings – all of the lighting would not be required.

2A-14 states that the Wells RMP requires “minimal clearing of vegetation”. What is minimal? There is not sufficient detail on the engineering, specific locations of project disturbance and other parts of this “flexible” project. Throughout this document, terms are loosely thrown about – with no sideboards or meaning provided. Detailed info must be provided for understanding where, how, and to what degree any clearing would occur, and the plants impacted. Thus, it is impossible to claim that veg clearing will be minimal. BLM just tosses terms and assertions around without any sideboards or controls.

Just where will truck washing occur? Will BLM vehicles be washed during every visit over the next 30 years? Will cattle and sheep, notorious weed vectors, be quarantined before entering the Project Area? See Belsky and Gelbard (2000). BLM itself is planning a large-scale fuelbreak project with aggressive, invasive forage kochia that is likely to infest areas at a considerable distance.

All use of pesticides should be forbidden here. What pests eat wind turbines? Is the developer hinting at using rodenticides? If so, full analysis of rick to native biota and the public must be analyzed – as there have been alarming recent eagle deaths from a dangerous class of rodenticides.

The weed BMP doesn’t even require that surveys occur for both noxious weeds and invasive plants. The word “or” is used. Thus there will be no adequate baseline to understand the extent of cheatgrass or other weeds that will actually be caused by the project. 2a-15 (8). Full and detailed analysis of the present

extent of cheatgrass and all other invasive species in the Footprint of the Project must be provided. Where is cheatgrass now present? At what composition in the understory? What areas are at risk of cheatgrass or other weed expansion with Project development? How would this increase wild land fire danger?

The Wells RMP forbids alteration of the potential natural plant community in riparian areas. The DEIS fails to provide detailed mapping, and analysis of ecological conditions and the present plant community to form a baseline for understanding how many riparian areas are present and their present ecological condition and extent in area - compared to how the development will alter or destroy riparian conditions – including hydrology, flows, ability to support hydric and mesic vegetation, extent of sage-grouse brood rearing meadow habitat, promote accelerated headcutting, erosion and loss of riparian zones, etc.

The northern inbound haul route cuts right through Threatened slickspot peppergrass habitat. Its upgrading and the large amount of traffic - both from the project and as a result of building a super-highway through the desert, would greatly increase risk of weed spread. BLM itself is proposing a large-scale Fuelbreak proposal that would use aggressive invasive forage kochia over vast areas of roads in the Jarbidge – so BLM, ranchers or the public are very likely to spread this weed into the wind project disturbed sites. We will be submitting our comments on LEPA critical habitat for this Wind Project record. The haul route impacts slice through and alter, degrade and destroy proposed critical habitat, and potential and occupied habitat. Full ESA consultation must occur.

BLM will not be able to rinse its own tires upon driving from one allotment/area to the next. The recreating public has no way to rinse tires – even if they were aware of potential for spread –when going from one area of the Jarbidge to the next.

BLM cannot rely on its Programmatic Weed EIS which allows widespread use of carcinogenic chemicals, and failed to adequately address the impacts of the chemical use and the massive vegetation manipulation and other disturbances that are underway on public lands. The proponent must not be allowed to be spraying weeds – funds should be provided to the BLM - and any chemical use be conducted under federal oversight.

Please explain in great detail what is meant by “the vegetation cover, composition, and diversity shall be revegetated to values commensurate with the ecological setting”. What does this mean? How will this be accomplished? Does this mean a raft of exotic species could be used –if BLM deems them somehow to be surrogates/”commensurate” with native species? Only locally adapted native ecotypes should be used.

Since adequate baseline data on the relatively intact native vegetation communities here has not been provided, and site-specific information on siting of turbines, roads, and many other elements of this proposal have not been provided, it is impossible to understand: 1) The current ecological setting; 2) How any reveg would be accomplished, and 3) Reveg feasibility and effectiveness and what it would entail. How will livestock grazing be controlled – with how much new fencing? Please provide detailed mapping and analysis of location of all fencing existing and proposed on BLM, private and state land. Please analyze the adverse impacts of imposing even more fencing on wildlife populations already reeling from a huge burden of fencing, water developments and other infrastructure in the Jarbidge. See Jarbidge AMS (2007) discussion of fencing.

2A-16. Cultural sites are an important part of the values of these public lands. Cultural sites abound in the project area, and for this reason alone, other wind farm locations must be examined under a range of alternatives. The Browns Bench area is a renowned obsidian quarry, there is extensive sign of lithic material, rock blinds and other features – all of which must be protected and not degraded or destroyed with industrial development.

What sites have already been nominated for the National Register? Is much of the area in reality of the caliber of an Archaeological District? If so, use this process to deny a ROW and conduct analysis for National Register recommendations and an Archaelogical District as well as a multi-state ACEC for sage-grouse and other native species protections, along with scenic and cultural protections.

Indeed avoidance is preferred – and the cultural values are another reason the impacts of this project cannot be mitigated. A ROW must be denied – with alternative siting in weedlands or other low impact areas examined. Without much more specific information on specific development/siting, the full impacts of development cannot be understood. Much more information must be provided on the significance and importance of the cultural sites – so a valid analysis of the impacts of development here can be understood.

It is impossible to understand just how 2A-18 (8) would be carried out – and what occurs if cultural conflicts cannot be mitigated without causing greater harm to critical rare species habitats/needs? Without detailed planning - there is no way to understand how all the promises in the laundry list of BMPs in Appendix 2A would actually be able to be implemented. If the choice comes down to destroying a cultural site vs. destroying wildlife habitats – what will be the basis for decisionmaking? What wins out? And we again stress that BLM likely will waive any and all BMPs in the end to accommodate developers – as Ely BLM did in sacrificing burrowing owls to accommodate the Spring Valley industrial wind developer.

In many areas, cultural sites are being disturbed by livestock trampling and veg alteration – the impacts of additional disturbances and erosion in these areas from the industrial development and the increased human uses and drastically improved access with the expanded road network must all be analyzed.

We are greatly concerned that here, too, the EIS terms any adequate mitigation “flexible”. Throughout the BMPs in the Appendices, and so-called mitigation, non-binding wording - like will or would are used.

What are the impacts of shadow flicker, low frequency sound, and electric-magnetic fields – either alone or in combination – on sensitive animal species, as well as recreational users? Pheasants can hear a car door slam from miles away – as a general example of avian sensitivity. Sage-grouse use various lower frequency sounds in breeding displays. What species are likely to suffer adverse effects from these turbine and all other noises from the wind project? See DEIS at 2A-22.

2A-23. The short, mid and long-term dramatically increased use of the “improved” and new roads - including the haul routes – will add a very significant disturbance factor for sage-grouse, big game, reptiles, birds and small mammals likely to be run over by traffic. The increased human disturbance and mortality factor that will be caused by the entire Footprint of this project is immense.

2A-24. What “treatment” substances might be used – and what are their effects? What about on all the haul routes and other roading across the Footprint of the Project?

2A-25. The operation of the wind farm itself will significantly increase fire danger. Wind turbines spinning are now believed to dry out and heat up surrounding lands. Fire danger will increase, cheatgrass and other weeds that thrive in hotter, drier sites will be likely to invade and thrive. Plus, all of the greatly increased human use on the “improved” and expanded road network will also. The wind developer has been courting OHV interests to gain support for the destructive project. OHVs are known to have caused many wildfires in the West – including in Elko County. So both the improved access, and the actions of the wind developer to promote OHV use in order to gain local acceptance of the wind farm greatly increase fire danger as well.

Example of effects:

http://www.bcrnews.com/articles/2011/02/22/r_qn3fcbtdrx6kykfnqwlefa/index.xml

"turbines increase airflow". In the arid high desert environment – this means greater evaporation – and earlier site drying which will stress native vegetation and promote cheatgrass. *"In this case, we anticipate turbines' effects are good in the spring and fall because they would keep the crop a little warmer and help prevent a frost," ... "Wind turbines could possibly ward off early fall frosts and extend the growing season."* This all means turbines in the harsh arid ID-NV environment are likely to significantly hasten site drying and thus lengthen the fire season; and alter growing conditions in favor of weeds that can best thrive in hotter conditions. See Peterson et al. 2007 cheatgrass mapping and analysis, describing cheatgrass unexpectedly being found in higher elevations on the Owyhee Plateau – in hotter micro-sites. See also WGFD (2009) Wind Guidance, discussion of wind development's adverse site drying microclimate effects.

The combination of removal of vegetation that serves to trap windblown snow in the project; blasting all the roads, turbine footings and other sites; snowplowing that will alter snow deposition and persistence in some areas; and increased evaporation are likely all to promote earlier snowmelt with and flashier runoff events. This means that the site is likely to become hotter, drier, desertified, more weed-prone and more fire prone. Full and detailed analysis of all of the micro-climate changes that are likely to occur - and how they will adversely impact native biota, recreation ad other values must all be analyzed in detail.

Appendix 2A Road and drainage design and layout. Please demonstrate that the number and length of new roads, laydown areas, borrow areas and fences have been minimized to the maximum extent feasible. How can you be assured of "minimizing" something that is this "flexible"?

Excessive grades, embankments, etc. are to be avoided – in areas with erodible soils; Existing drainage systems shall not be altered … especially in sensitive areas. It will be impossible to build this without extensive alteration including on private lands. What protections will be applied to private lands? AND isn't this what one of the RMP amendments is all about –stripping protectiona to allow drainage alteration? An honest SEIS must be prepared.

There is no evidence that the road standard being proposed will actually be sufficient.

2A-30 requires that unstable slopes and other factors be identified in relation to project components, and that operators will avoid creating excessive slopes. Yet it is impossible to understand how and where these areas will be impacted since specific siting and necessary engineering info has not been provided.

How much topsoil actually exists in many areas? How depleted are soils and soil layers now? Where will any soil be stockpiled, and what will be destroyed by these piles? This also affects the ability to do any successful reclamation.

Many small drainages run bank full for brief periods in the spring –or after storm events – how will the developer ensure that all of these drainages are protected? How will water sheeting and eroding access roads amplify adverse impacts?

How far from the road will water bars extend? Won't this add an even greater road disturbance effect/weed invasion site? Cheatgrass already chokes bladed roadsides and water bars in northern Monument Springs road, and is even invading bladed road sides on China Mountain itself.

2A-33 refers to seed mixtures listed below – but none are found. We fear BLM will use this as an opportunity to seed large-statured cattle forage grasses. Only local native ecotypes should be used in any rehab effort. All that is mentioned is that Veg Plan will be prepared 120 days before the NTP. This is outrageous – BLM seeks to bury yet more information. This is critical since rehab will be extremely difficult and likely impossible in many areas.

2A-34. While its nice that a Traffic Plan will be developed – this does not address greatly increased use by OHVs and others once upgraded roads are in place, and it is easier to get to remote areas and jumping off points.

Management plans should be provided as part of the DEIS – not tacked on at the very end. This is necessary so that their adequacy can be used in determining suitability of the site for development - and so DEIS analysis can honestly consider the likelihood of minimizing harms by taking a "hard look". These must be provided in a SEIS.

APPENDIX 3A - RES Minimal BMPs

The Applicant's proposed loose and meager BMPs largely mirror those of Appendix 2A – and suffer from the same inadequacies. See 2B-1 to 2B-19.

BLM must assess the uncertainty associated with the issuance of "waivers" to get around environmental protections to the benefit of industry. WWP is concerned about the pattern of BLM waiving requirements for energy developers. For example, any and all BMPs appear to be waived by BLM if they are an impediment. Example: Ely BLM Spring Valley wind issued a "variance" so construction could proceed by burrowing owl burrows.

The DEIS greatly underestimates the degree, level and range/scope of disturbance. How many miles surrounding the project and its infrastructure will impacts be felt? Over how large an area will different species and their habitat needs be stressed?

Under mitigation here: We can find no necessary baseline data on habitats and populations for all species to understand how much they they will be affected – Brewer's sparrow, sage thrasher, sage sparrow, ferruginous hawk, etc. So it is impossible to develop mitigation. What significance will 2B6 have to local or regional populations? What other stresses do these populations face? This entire RES list of actions lacks any real substance, effectiveness, or meaning.

Under Water Resources (2B-8); How will blasting and other activity affect site hydrology, springs, and aquifer characteristics?

RES grouse "mitigation" measures, including the weak conservation plan that will be ineffective at preventing population declines and extirpation. With displacement of sage-grouse (especially with numbers as low as that shown by the recent lek counts at many leks) from critical habitats and loss of habitat connectivity, populations will be diminished, and may blink out.

What an insult to the public and the wildlife! The developer can only manage to monitor wildlife fatalities for 5 years. (2B-11). Is RES trying to set the bar so low that any minor changes that FWS or others may require if this disaster gets to the FEIS stage will be hailed as significant "improvements"?

The socioeconomic info shows that this will be a typical boom and bust proposal. Low-paid or short-term workers will be present during construction. There will be a large loss in recreational opportunities and

lowered quality of life. The permanent workforce is likely to be greatly shrunk from that predicted by remote monitoring capabilities.

Appendix 3B Acoustic Fundamentals (aka Noise)

The Appendix, along with the DEIS analysis, is useless in understanding noise levels, and how noise will actually impact sage-grouse, migratory birds, bats, big game, recreational users. The info here is greatly inadequate for understanding the degree and severity of adverse impacts of turbine and project noise on wildlife. Full and detailed modeling and analysis must be provided that includes road noise over the life of the project, as well as turbine and any other noise as it is likely to be perceived by sound-sensitive wildlife and recreational users. There is increasing serious concern about wind farm noise effects – most prominently from human residents exposed to this severe unnatural disturbance. See for example: **The great divide over wind power; Where winds blow, storms follow**

"It sucks," says Elmes. "The noise is, at times, huge." Sometimes it sounds like a pulsing jet engine. At other times, it's a constant rumble, like an endless freight train passing. Neighbours tell her it's like living near an airport. "The range of noise is unbelievable, and it's all so completely different from what you're used to that you just stop whatever you're doing," Elmes says. "I used to love my neighbourhood. I don't anymore."
May 21, 2011 by Don Butler in The Ottawa Citizen

Human residents near wind farms are increasingly reporting significant health and wellbeing impacts. So what does this mean for wildlife? How far can raptors, sage grouse and other special status species hear noise of turbines? Ultrasound? Blasting? Other operation or construction noises? Please develop a comparative chart of bird, elk, and other animal hearing by species for various sounds and decibel levels, and conduct full analysis of all the combined noise intrusion of the wind project on all important habitats and use areas in a SEIS. Please include consideration of ultrasound. Please conduct detailed predictive mapping and analysis of the noise Footprint to which sage-grouse, nesting migratory birds, recreational users, and big game will be subjected.

The DEIS, despite being a wind project document, is curiously devoid of substantial information on wind speeds, wind direction, seasonality of winds, variations of wind in different locations, etc. There is little information presented related to wind direction - both regionally, and even more locally in association with individual ridges – which may bear importantly on how the project could be better-positioned (or not able to be positioned at all) to avoid flight patterns of migrants, or of raptors to and from nests. Understanding wind characteristics may also aid in noise analysis!

How much blasting, drilling, digging, percussive activity, seismic activity, and other types of noise will be associated with this development, roading, etc.? When? Are there adequate seasonal avoidance criteria to protect all nesting birds, wintering big game, roosting bats. for all of these activities?

Please conduct detailed analyses – based on human habitation, recreational uses such as hiking or backpacking, sage grouse leks, effects to big game wintering or other habitats – and many other important species. How will noise change with different environmental conditions – winter vs. summer? Please develop accurate models.

Why not include a BMP that triggers facility shut-down and decommissioning/turbine removal if certain noise levels are exceeded or wildlife driven away from traditional use areas?

Where are any other wind ROWs that have been issued in both FOs, or potential projects on private lands? Where are all mine claims, oil and gas leases (if any), geothermal leases (if any)? Where are all water rights? Who holds them? What amount of water are they for? If all existing water rights were being used to their full extent – has water already been over-allocated?

BLM must require that all road layouts and extensive engineering diagrams and planning be detailed before any analysis can occur. A Supplemental DEIS must be prepared that provides many more details of where and how all roads will be built and located – so that their full environmental footprint can be determined. The energy company apparently wants BLM to leave many matters wide open. BLM cannot issue a ROW without the developer revealing all necessary info to the public for full comment and review under NEPA. What brand of turbines will be placed in what exact locations --- so plans can be adequately developed and analyzed, and it will be known which cranes will be used? Why does the energy company constantly keep trying to get by on the cheap – instead of clearly laying out in front of the public what its plans are?

The public must be told specifically where project components will be located on the landscape in order to understand the noise, visual and other impacts to wildlife habitats, associated erosion, how significantly the visual nature of the landscape will be changed, etc.

While the EIS claims to limit lay down areas, and other turbine assemblage disturbance, it has not provided necessary data on the plant communities that will be disturbed here. How old is the low sagebrush, mountain mahogany, etc. that may be disturbed or killed in this and all other features of the project. Could helicopters be used in any part of this to limit ground-based disturbance, road construction, etc, and thus reduce construction impacts? BLM must require use of helicopters, rather than roading, to the maximum extent possible. Where will this be?

The project abounds with new, all weather turbine string roads. BLM promises great things for these roads. Yet where are the design specifics for each road – Location? Size? Pullouts? Switchbacks? Cut? Fill? Permanent land scarring and visibility from various directions? Old growth vegetation removed and destroyed? Degree and severity of erosion in wind and water? Water flows and watershed processes disrupted and altered? Snow deposition and persistence altered or disrupted by the combination of roading and wind facilities, and winter plowing activity? Will areas become desiccated and dry out? If so, where and to what degree? Won't hotter drier sites be more desertified and prone to weed invasions – and more difficult to rehab? It is impossible to estimate anything -ranging from base fill needed to visual impacts to vegetation communities destroyed– unless more info is provided.

Another major concern here is the transmission line, and supposed raptor proofing. The Air Force in the Jarbidge BLM lands claimed to be raptor-proofing its new transmission line to the Juniper Butte Bombing Range. Instead, the "raptor-proofed" line created a perching mecca for wintering raptors. We predict the same will happen here.

The Sage Grouse Conservation Assessment (Connelly et al 2004) provided evidence of grouse avoidance of areas near major roads (even if other habitat features are present), and now all the studies on energy development in *Studies in Avian Biology(* Knick and Connelly 2009) support this. BLM must assess suitable habitat that may remain a suitable distance for the birds from roads and development. The wind turbines and development will be placed in the middle of critical wild public lands, and various access routes will be imposed on others - and grouse will be displaced, and likely extirpated. Chapter 4 absurdly makes comparisons between the very similar alternatives based on claims of "acres avoided" – but there is no assessment of the quality or suitability of the habitat "avoided" and the Footprint will be felt over an immense area. Using just acres obliterated has no real biological, recreational, or other validity.

Of great importance is the juxtaposition of habitat components. For example, where are the 50-60 springs and seeps in Brackett Bench allotment alone – these springs and seeps, and wet meadow areas provide critical summer brood rearing habitat for sage grouse, watering sites -- in relation to project disturbance or infrastructure? If grouse movement is cut off, or altered, due to their avoidance of infrastructure or constant noise and visual disturbance, critical habitat components and connectivity will be lost. Plus, BLM never reveals the current condition of these areas, or existing or proposed impediments or mortality factors with grouse use here –such as fences.

DEIS 2.5 and Appendix 2B - Applicants Proposed BMPs, Mitigation, and Monitoring (from Applicants POD)

The DEIS refers to the POD – but it is not provided. Where is the POD, and why isn't it posted on-line for public review?

Appendix 2B merely restates many of the measures found in 2A, and that are inadequate and/or insufficient supporting data and analysis have been provided in the EIS. For example, it re-states platitudes about "good housekeeping". On critical issues like the specific location, or specific amount of blasting, and protections for wildlife, watershed and the public from blasting and other impacts of construction and operation across the Project Footprint, it is greatly deficient.

There is no certainty that decommissioning will ever be able to restore lands to anything resembling their pre-project condition. There is no adequate site-specific Baseline provided to allow the public or BLM to understand what the current conditions are in all areas in the Footprint of the project. Will "improved" haul roads be returned to their previous condition?

It will be extraordinarily expensive and often impossible to "restore" rugged lands blasted apart in placement of this project in this remote, scenic area. A billion dollar bond (at least) must be posted to ensure that reclamation and rehab actually are done in a manner that restores at least some areas. How much profit will this project make? How much in loans, subsidies or other funds at the local, state and federal level will taxpayers have sunk into this? Wasn't part of the purpose of Senator Harry Reid doing a legislative Rider to force the SWIP line through without challenge on its environmental impacts to benefit this RES China Mountain or other wind development? And now the northern leg of SWIP appears delayed (at least temporarily). So in light of all the subsidies, politician maneuvering and string pulling to try to greatly subsidize this damaging development – the developer can certainly afford billion dollar bonding to be posted upfront. Substantial mitigation is already necessary, too for the many MET tower sites where elevated dirt heaps that are increasingly weedy mar public wild lands and critical sage-grouse habitats.

Mitigation Measures and Monitoring during Development (2B-4 to 2B-9) are greatly inadequate to protect the public, wildlife, vegetation, soils, watersheds, ground and surface waters, aquatic biota, cultural sites, etc.

Detailed information must be provided on plans to curtail public use of public lands "during construction". See 2B-5. "… to protect the **public access may be controlled at certain times** and in certain areas during construction". Where are the specifics on this? This should not be allowed. The company can provide flaggers or other personnel to alert the public during construction – but this disturbing statement opens the door for barring the public for extended periods. This provision is a new height of arrogance for a wind development. These are public lands and resources – yet RES UK is already acting like they own them lock, stock and barrel.

The entire project should be open to public access throughout its construction and operation. What happens to public access if portions of state or BLM lands in or near the project area and access routes are traded or privatized?

Where are all existing RS 2477 claims in and around the project area and what roads do they apply to? How are they being dealt with?

The entire project area must be permanently closed to livestock - as mitigation, and to promote effective rehab of the large areas of disturbed and destroyed soils. Instead, the developer has been promoting livestock grazing here (Example: BLM ID-NV RAC tour). It is highly foreseeable that wind power is likely to be used to pump water and further extend and intensify the level of livestock use of critical grouse, wintering big game, pygmy rabbit and other habitats. Temporary and permanent fencing is likely to proliferate as well – with no controls on private land.

We have reviewed the proponent's mitigation/conservation plan for sage-grouse and other wildlife, and it is greatly inadequate. The habitat at China Mountain is irreplaceable – due to a unique combination of habitat and topographic features. Throwing 16 million dollars at scattershot and piecemeal supposed "mitigation" elsewhere will not be effective, or provide any certainty.

There is not adequate detailed data and analysis on the current status of habitats and populations across the Project area as well as any site where mitigation would occur.

It is impossible to understand how much "clearing", geotechnical activity or other crushing, and losses of sagebrush of all species and sub-species will occur.

A monitoring study is not adequate mitigation. Instead, it appears to be in large part an effort to dilute agency opposition by funding studies. What is the population now? What threshold of bird numbers will be used to shut down the project? Will the study result in determining the need for permanent shut-down and removal, and will this plant shut down and turbine removal be required as part of any right of way grant?

It is absurd to say parts of the project area may be closed to the public, but not to livestock. There is more fretting about accommodating livestock and livestock safety in the DEIS, than there is about the public. Yet, there is no detailed analysis of the current degree and severity of livestock degradation of values of the public lands, including FRH violations, harmful etc. seasons of grazing use and trailing that conflict with wildlife needs, gross overstocking, grazing of sheep on top of cattle, BLM failures to adequately control and monitor use that occurs, and generates loose and uncertain grazing plans. The battery of adverse impacts of livestock management and facilities, all must be examined across the project Footprint and affected allotments, as well as state and private lands.

The DEIS greatly ignores the adverse impacts to slickspot peppergrass and other rare or imperiled plants. Simpson's hedgehog cactus habitats must be protected. Yet there is no certainty that any occurrences or habitats will be protected. It is unclear from reading the EIS if intensive systematic surveys have occurred all across the project footprint. We have frequently observed hedgehog cactus in both the ID and NV portions of the project area.

Full ESA consultation over impacts to slickspot peppergrass must occur - for the road upgrades and dramatically increased traffic, and the OHV and other use including increased fire risk that the expanded and upgraded road network will cause, as well as altered and intensified grazing impacts. This will result in increased fire risk, increased weed spread – both noxious and other species, fugitive dust smothering

microbiotic crusts or being deposited in slickspots – making them more prone to weeds, and likely shifted and intensified livestock use in slickspot habitats.

The DEIS keeps avoiding addressing all invasive species – especially cheatgrass and other aggressive annuals that are spreading all across the Jarbidge in areas of intensive livestock disturbance, and burned and chronically grazed areas, and along road verges from which these species then invade adjacent pant communities. This concern is made greater since the developer is going to continue and accommodate livestock use all across these lands. Livestock disturbance promotes and spreads weeds, and inhibits rehab success.

There is not adequate noise analysis (including blasting) and mitigation provided for wildlife. There is no adequate analysis of the cumulative impacts of noise from all aspects of this project.

The developer can't avoid impacts to water resources until a SEIS explicitly lays out what the current baseline of ground and surface water resources is.

The fire plan is inadequate. In it, we learn there will be even MORE vegetation disturbance – i.e areas (unknown location) where welding will be done will be cleared of vegetation. Don't weld in fire season, and thus protect the vegetation.

What will be used to "treat" materials removed during construction? What does this mean?

Please detail all sites - and provide detailed mapping of these areas – that have "high fire potential".

Does this part mean that the project proponent would close public roads and restrict public travel when fire danger is high? What is meant here?

There should be no construction during the period of fire danger, i.e. June-September.

RES reaching a programmatic agreement does nothing to address concerns about the scale of the cultural impacts and losses of sites and resources that would occur, including sites that have significance related to their context in the landscape, or that may qualify for protection under the National Register. Impacts to the historic Toano trail are also of concern.

RES follows up on its efforts to restrict public access during site development with the following disturbing info:

Public Safety/Operation*: Given that the site is owned and administered by BLM/IDL/counties, the public has a right to access the site and use it for recreation. This right will be balanced with the protection of public safety, a key aspect of the site HSE plan. To accomplish this, O&M staff will ensure public education, site access control, fencing, and* ***limited public supervision activities****" DEIS at 2B-10.* This appears to be a **land grab**, too - setting the stage to harass and drive off members of the public from legitimate uses and enjoyment of the public land, or observing wind project impacts to native biota and other resources.

ALL of the details, limits and bounds of site access control, fencing, and limited public supervision activities must be explained in great detail. Will there be armed guards with guns keeping the public from areas? What areas will be fenced off? Will the Kill Zone area where carcasses from turbine collisions, barotrauma, etc. be fenced off so the public cannot view eagle, rare bat, and other mortalities?

Full public access to all areas of the Project must be ensured over the life of the project – as part of the Terms and Conditions of any project siting. Including on all roads that cross private land that are currently open to the public?

Wildlife Operation (2B-11 to 12). A minimum five mile or greater avoidance zone must be put in place for all leks and other sage-grouse seasonal habitats including brood rearing and wintering habitat during all phases of any wind Project. This must established across the entire Project Footprint. The one mile offered up by the developer is a joke (2B-11). More detailed information must be provided on all habitats, habitat use, etc. especially in Nevada and especially in relation to the whole footprint of project disturbance.

In order to have a biologically valid baseline of sage-grouse use of the area, the MET towers must be removed and bird behavior studied for 3 to 5 years without them. The degree to which the towers interfere with and hinder wildlife use of the area cannot be understood otherwise. Further, areas near the Nevada border were not adequately surveyed for leks prior to imposition of MET towers in sagebrush habitat.

While it is nice that monitoring might occur, shut-down of the facility and its removal must occur based on exceedance of sage-grouse protections, and/or when population decline thresholds are reached. But in reality, the population is already so imperiled that IDFG doesn't even allow hunting. So any additional source of mortality would lead to further declines from which the population is unlikely to recover.

Eagles. What will the size of any exclusion areas be, and what science would they be based on? Where are all active or historic aeries? Prairie falcon, ferruginous hawk, Swainson's hawk, northern goshawk, peregrine falcon, and other nesting sites? How fragmented is the habitat - including for prey species - at present?

If any eagles are killed, the facility must be shut down, and turbines removed. "Monitoring" means nothing without rocksolid triggers of specific actions, and requirements for clear decisive action. But first the full current baseline of the situation regarding the local and regional eagle population and the significance of this area to the species population must be provided. What is the current population? How has it changed (including active nests) over all time periods for which info is available? Are there now studies underway that are highlighting the regional significance of this population? Please provide full analysis in a SEIS. How important is the site for young eagles, migrants, or for prey base habitat?

It is clear that USFWS/BLM/other agencies have allowed industrial wind developers and consultants like WEST in other areas to greatly under-estimate the level of mortality that would be caused by wind turbines. At many sites, consultants have under-estimated mortality – to favor wind developers. Agencies accepted these claims –and now there are serious eagle declines – as in Oregon where USFWS is now prohibiting turbines within 6 miles of eagle nests. A risk assessment must be conducted by parties other than wind consultants. What is the real level of harassment, and mortality, that will occur here? A 6 mile or greater buffer from any eagle nest must be applied here for wind turbine siting.

The DEIS refers to essentially distracting/placating interest groups with studies. There is no assurance of any effectiveness of any study examined in the EIS. A SEIS must be prepared describing in great detail any study and triggers for shut-down of the facility if declines are found. Is RES is trying to deflect concerns by turning this into some kind of grand "study" of a wind project destroying sage-grouse and other wildlife populations – as a way to get a project built – and then "study" the inevitable readily forecast wildlife ruin and harm it will cause?

Just how effective will any exclusion area of any particular size be?

Migratory Birds. This basically shows there is no significant developer mitigation for migratory birds. What is meant by “slow-rotating blades for easy observation”? We don’t even know what turbine make will be used. Any mortality monitoring must be done by independent parties who report directly to BLM, and all results must be posted in a timely manner on the Internet for full public review. Rocksolid mandatory triggers that shut down the plant and lead to turbine removal must be triggered by mortalities. WWP has observed large numbers of migratory birds passing through this area in spring over the years – and it is clear that the diverse habitats in the project Footprint comprise an important migration area. Many thousands of songbirds may be killed in migration period collisions with turbines each year, especially when they are migrating at night under inclement weather conditions – such as frequently occur in this area. Detailed site-specific radar and other studies over all periods of the spring, summer and fall must be conducted. Complete information has not been provided to date. Thus, it is impossible to even guess at the high number of mortalities, or to then develop mitigation actions, preclude turbine placement in important use areas, etc.

The “flexibility” and lack of specificity in the EIS ensure limited to no real accountability. How will BLM ever at a later construction date – understand and control any “balancing” of cultural vs. wildlife vs. scenic viewshed or other siting shifts? What “resource” loses out as conflicts arise?

The wildlife fatality monitoring plan is unclear and greatly inadequate to detect the degree of bird and bat mortality that is likely. Daily monitoring over the entire life of the facility is required.

Why do mule deer rate a minimal mention under mitigation, but antelope, elk and other wildlife do not even get any protective measures. We stress that this area is potential bighorn sheep habitat. Elk are dramatically increasing and now rely on the Project Area for winter habitat. Detailed baseline studies on deer, elk, antelope use and movement and population levels – as well as habitat concerns over the local and regional area must be conducted and provided in a SEIS. The same applies to Water Resources, Fire, Haz mat, Cultural, etc. in 2B and throughout the DEIS.

Decommissioning is unclear. Will all road upgrades be de-commissioned?

The developer relies on placement of harmful fencing at every opportunity.

2B-16 provides chainlink fencing to “protect livestock” from hazards – but no protection measures for wildlife.

Appendix 3A lists PFC condition based on old PFC assessments. Since that time, there have been wildfires, extensive concentrated cattle/sheep use and degradation of many of these areas. See WWP 2011 Riparian Photos. Many of these areas are not in PFC, and site conditions have worsened since the info in 3A was acquired (2004-2006). Example: Browns Creek segment, China Creek segment, Cedar Creek, Clover Creek segments, etc. Plus, absurdly Elko BLM claims PFC is “NA”. So there is no data for Elko, and no data for any private land, either it appears. WHERE are all segments listed in the Table – please provide mapping.

There is also no PFC or any other information provided for all the springs and seeps in the area – including the 50-60 springs/seeps in Brackett Bench allotment alone, or the private or state lands. Even important BLM drainages damaged by fire and livestock - like Corral Creek - aren’t even listed.

Fires, and rapid re-imposition of livestock disturbance, before willow and herbaceous riparian recovery occur, have affected and increased degradation risk and stressed aquatic habitat conditions and biota in portions of China Creek, and several other areas. Plus after fires, BLM shifted and intensified livestock

use on any unburned areas. It is unknown if any rest whatsoever occurred on some burned areas of private lands in the Footprint of the project.

PFC is subjective, and is a minimal measure. It does not address habitat quality for aquatic biota, water quality and quantity including sustainable perennial flows, and many other attributes of wild land waters critical to full understanding of current conditions and direct, indirect and cumulative effects of the further stress of this massive industrialization of the landscape.

How many riparian areas on private lands are included in this list? Where is the info on conditions and all characteristics of these riparian areas?

Appendix 3C Bird Survey Data

The fixed point surveys provide minimal and greatly inadequate information. It is very difficult to understand how surveys could have been conducted in this very diverse and complex area – and so few birds be seen.

The number of points and survey effort was greatly inadequate to detect the full number and species composition of migrants. See WWP comments on Young 2009 Report.

Waves of western tanagers, orioles and other migratory birds move through here in spring (Fite, field observations over the past 20 years). A single Bullock's oriole, and 2 western tanagers were observed? Only one species of hummingbird? No loggerhead shrike observations? Were the sites located so as to MINIMIZE observations? A single poorwill??? A single sage-grouse? Were only birds seen tallied, and not birds heard? Whatever occurred, this is greatly inadequate - the area is alive with bird life in late spring and summer, as well as during fall migration. Was this entire effort dry-labbed? Large-scale songbird and other mortality will occur from road use across the Project Footprint. WHERE are bird surveys for these areas?

We are dismayed at the lack of full and detailed information concerning the important avifauna - both resident and migrants – of the area of the Project footprint. BLM handed much of this off to consultants, and the end product is greatly deficient. Why didn't BLM require adequate studies be conducting before developing alternatives and a DEIS? Did BLM check to see if this feeble effort even complied with wind industry standards?

Where is all analysis of how the project will affect the habitats required by each of these species?

Where is full and detailed radar night time migrating bird information for all migration periods since the project studies began?

Full and detailed mapping and other information - including on how sites were chosen, how many sites were examined, etc. for all time periods must be provided.

How does this translate into anything meaningful? One sage-grouse was seen in the fixed point counts, Yet in Appendix 3E "sensitive species", sage-grouse are described as present and "abundant". So does that mean species like MacGillivray's warbler, where the fixed point count found many more individuals, are super-abundant?

The confusion here seems designed to cover up the lack of high quality data. Of course, the consultants have long been trying to claim that impacts (including on sage-grouse) of this awful project would be inconclusive. Studies and discussion appear tailored to promote that myth.

Appendix 3E - Special Status Species

This section merely consists of a Table with simplistic summary info that lacks critical site-specific information on where, when and how species use these lands, current population status, and how all parts of the development will impact habitats, habitat connectivity, and population viability. In many instances, no specific surveys of any kind were done to detect species in all areas affected by the project. Detailed surveys and analysis are necessary to understand all impacts –including cumulative impacts. What will other threats and developments mean to critical habitats and populations? First, BLM needs to know what the Footprint of the entire Project disturbance will actually be in all of these species habitats. Then BLM needs systematic site-specific biological surveys. Since even the engineering part of this remains nebulous and flexible, it is impossible to understand impacts. This whole effort must be re-done by qualified USGS or other biologists, and not handed off to industry consultants to garble, omit, and obfuscate.

Sage-grouse use areas with a much broader range of canopy covers. Even Jarbidge BLM now considers/maps 10% or greater canopy cover as habitat, as well as areas with sagebrush density considerably higher.

Efforts are being made to expand the sharptail grouse population, so relegating use to winter is unacceptable. Much of the project area is recovery habitat for sharptail grouse, and links Idaho and Nevada populations of this species.

Were searches conducted for northern goshawk nests?

3E-2 states that the golden eagle is present, and there is an active burrow. Obviously, an error – but part and parcel of this flawed programmatic EIS. There are **several active golden eagle nests** within the project area, and this project will have calamitous impacts on habitats and the population of the golden eagle, which will contribute to accelerated regional declines. In all instances – How is the project area defined and what land area were eagle and other raptor surveys conducted over?

3E mentions mist-netting for bats. Where are the results? Biological reports are hidden from the public. Where were all sites where nets were placed? When was this done? For how long? What about Anabat and other information? What distance are bats recorded from the detectors? Doesn't the limited amount of info indicate a very large number of bats may be present? Where is all bat radar info? It must be fully provided for public review in a SEIS. See critique of WEST Young et al. Bio report.

lnformation in 3E shows that there are several very important sensitive bat species in this area. These species face an unprecedented array of threats from wind turbines, communication tower wire collisions, and potentially white nose syndrome. We note that Nevada and now Idaho's BLM's website currently has concerns about white nose syndrome posted on-line, yet inexplicably this is not examined in the main part of the DEIS as a looming threat and potential significant cumulative effect. Yet only cursory info and analysis is provided.

How will blasting, and turbine noise, impact roost sites? How carefully was the entire area surveyed for bat roost sites? How might white nose syndrome threaten rare bat species that occur here?

Systematic live-trapping for small mammals must be conducted to determine presence of rare species in this very diverse and critically important area that straddles two states.

This list omits California floater (found in areas of road impact). While this lists redband trout, there is no further information provided on the population status and aquatic habitat connectivity.

Systematic inventories for northern leopard frog, Columbia spotted frog - and other amphibians including several species of toads and reptiles must be conducted throughout the project area. The BLM's previous inventories were tied in part to ESI sties, and did not conduct many studies in the diversity of communities present into the project area. Only one study, for example, was conducted in aspen.

Appendix 3F Visual/Photos

The assessment of the Visual Impacts is greatly inadequate. This project will be visible from large distances – its road scars, turbines, etc. No adequate analysis has been applied to this. The noise and disturbance of project construction and operation will negatively affect many species and recreational uses. The project will scar, alter and destroy many of the open space amenities sought both by recreational visitors. The Visual information including in the Appendices is simply not adequate in assessing the sevee harm that will occur.

DEIS photos are very inadequate in portraying the baseline condition of all aspects of the project area including its great scenic beauty and visual appeal, or the very high quality of mature and old growth mountain mahogany, low sagebrush and other habitats, and the beauty of their complex interspersion. They do not adequately reflect the panoramic views from many portions of the Project area – such as views of Elk Mountain and the Jarbidge Mountains including Wilderness peaks, the Granite Range, Middlestack, Tijuana John, the Snake Range and more distant peaks - even Pilot Peak, the Albion Mountains and Raft River Range are visible from ridgeline sites.

Each specific site proposed for a turbine, cable trenching, powerline, all lengths and segments of all new or improved roads must be documented extensively with photos so that a valid baseline can be established, and the developer be required to post sufficient bonding to try to restore the setting when the project is de-commissioned and/or shut down due to high mortality, near-extirpation of populations, or other adverse impacts.

Photo 7C's purpose is to document the approach toward Cottonwood Creek. This photo isn't adequate.

Photo 8A of the construction vehicle staging area shows just how much of an eyesore any development will be in this wide open, highly scenic landscape.

The Visual sheet in Appendix 3G has limited KOPs. It provides minimal information, and are greatly inadequate for examining the full range of visual impacts. Jarbidge BLM's Rec staff have shown little appreciation for sagebrush or wide open landscapes – as shown by the DRMP. This must be re-done.

For example, Sheet 1, Proposed Activity Description
Evidently, BLM's specialist didn't realize there would be bright flashing lights at night on the turbines – the visual description is "*transition from white to grey to black from day-night*". BLM forgot the bright erratically pulsing red lights, including in snow conditions where light reflections on snow look like carpet bombing.

"Structures" states "Vertical poles are short blades or short and move". This is ridiculous. The wind mills are huge eyesores.

BLM then claims that the project meets visual objectives for VRM III, but not II. We disagree – the combined effect of giant wind mills, moving blades, night lights, huge road gashes all over a highly scenic tableland all will result in a violation of VRM III, too. The area will have the appearance of an industrial site.

BLM also states that part of the evaluation was done during a period of low hanging fog! BLM couldn't be bothered to come out on a bright, clear sunny day – when the gleam of a barbed wire fence alone may be visible for several miles, and metallic structure intrusion may be widely varying depending on time of day and light conditions.

Where are any visual studies of how severe the night-time light pollution will be? Please do not repeat the ridiculous consultant effort for Spring Valley – where the consultant falsely claimed the pulsing red lights would look like Mars.

We also note this BLM methodology used was from the 1980s – and was not designed for the full battery of metal glare, turbine motion, and light intrusions of 2011 industrial wind farms with 430 ft tall structures and spinning blades.

A Supplemental EIS must be prepared that honestly examines this with skilled observers who understand the full battery of industrial wind farm impacts to visual resources, and who are knowledgeable in, and appreciate, the beauty of arid landscapes.

Analysis must be done based on many more important KOPs – including Corral Creek roadless, Black Canyon roadless, other unroaded and visually beautiful lands – like Steamboat, and Rocky Canyon potential WSR. Lands of great importance to sage-grouse in Idaho and Nevada must also have a vlid visual analysis conducted for them. Example of sites that must be studied: Nevada ridge west of NV MET tower with hundreds of sage-grouse roosting dropping piles.

The visual Footprint of each turbine, and all components of the project, must be provided. See for example the 2008 MET Tower EA Visual Mapping. Just the MET towers alone are visible over a vast area.

BLM must conduct analysis based on all visual aspects of this project. This includes the darkness of night skies, and the project's visibility and intrusive impacts to wild and remote settings over a vast area. The recent Spring Valley Wind night skies report was laughable - claiming that the bright erratically flashing lights would look like Mars. Well, BLM cannot rely on this kind of nonsense here. It is very possible to model how severe the disturbance will be through distance observations from Antelope Pocket and northern China Mountain of the wind farms and other lighting to the north.

This is a very poor and minimal effort – designed to minimize presenting full information on the severe impacts that this project will have on this stunning and beautiful wild landscape. We believe BLM's Visual analysis requirements are much more extensive and substantial:

See http://www.blm.gov/nstc/VRM/

Different levels of scenic values require different levels of management. For example, management of an area with ***high scenic value*** *might be focused on preserving the existing character of the landscape, and management of an area with little scenic value might allow for major modifications to the landscape. Determining how an area should be managed first requires an assessment of the area's scenic values.*

Assessing scenic values and determining visual impacts can be a subjective process. Objectivity and consistency can be greatly increased by using the basic design elements of form, line, color, and texture, which have often been used to describe and evaluate landscapes, to also describe proposed projects. Projects that repeat these design elements are usually in harmony with their surroundings; those that don't create contrast. By adjusting project designs so the elements are repeated, visual impacts can be minimized. [THERE is no way to "harmonize" 430 foot tall structures, or garish night lighting].

BLM's VRM system provides a way to identify and evaluate scenic values to determine the appropriate levels of management. It also provides a way to analyze potential visual impacts and apply visual design techniques to ensure that surface-disturbing activities are in harmony with their surroundings.

The inventory stage involves identifying the visual resources of an area and assigning them to inventory classes using BLM's visual resource inventory process. The process involves rating the visual appeal of a tract of land, measuring public concern for scenic quality, and determining whether the tract of land is visible from travel routes ***or observation points.***

Class I Objective: *To preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention*

Class II Objective: *To retain the existing character of the landscape. The level of change to the characteristic landscape should be low*

Class III Objective: *To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate.*

Class IV Objective: *To provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high.*

The analysis stage involves determining whether the potential visual impacts from proposed surface-disturbing activities or developments will meet the management objectives established for the area, or whether design adjustments will be required. A visual contrast rating process is used for this analysis, which involves comparing the project features with the major features in the existing landscape using the basic design elements of form, line, color, and texture. This process is described in BLM Handbook H-8431-1, Visual Resource Contrast Rating. The analysis can then be used as a guide for resolving visual impacts. ***Once every attempt is made to reduce visual impacts****, BLM managers can decide* ***whether to accept or deny project proposals****. Managers also have the option of attaching additional mitigation stipulations to bring the proposal into compliance …*

B. Identify VRM Objectives. Use the RMP generated objectives when available. Where there are no RMP approved objectives, interim Visual Resource Management (VRM) classes will be developed using the guidelines in Handbook H-8410-1 except: (1) The inventory will be limited to the area affected by the project; and (2) the VRM classes will reflect the management decision made in existing RMP's. An RMP amendment is not required unless the project that is driving the evaluation requires an amendment.
C. Select Key Observation Points (KOP's). The contrast rating is done from the most critical viewpoints. This is usually along commonly traveled routes or at other likely observation points. Factors that should be considered in selecting KOP's are; angle of observation, number of viewers, length of time the project is in view, relative project size, season of use, and light conditions (see Section IIID2b for a more detailed description of these factors). Linear projects such as powerlines should be rated from several viewpoints representing:

Most critical viewpoints, e.g., views from communities, road crossings.

Typical views encountered in representative landscapes*, if not covered by critical viewpoints.*

Any special project or landscape features such as skyline crossings, river crossings*, substations, etc.*

D. Prepare Visual Simulations. Visual simulations are an invaluable tool in effectively evaluating the impacts of a proposed project (see Illustration 1). Simulations are strongly recommended for potentially high impact projects. The level of sophistication should be commensurate with the quality of the visual resource and the severity of the anticipated impact. Simulations are extremely important to portray the relative scale and extent of a project. They also help public groups visualize and respond to development proposals, making public participation in the planning process more effective. The BLM publication Visual Simulation Techniques should be consulted for the appropriate simulation methods.

BLM clearly has not complied with these requirements – including full analysis of representative features, skyline crossings – by all turbines and turbine strings – for example, from the view point of a hiker, photographer within the project area, etc.

BLM must conduct a valid current VRM analysis, placing lands in their modern day context of visual importance and public appreciation for sagebrush wild lands. This is likely to result in large areas of lands rating as VRM II (as was done in the Jarbidge). Now a new analysis must include in the Nevada portion where little protection exists.

Appendix 3H-1 Natural Resource Recreation Settings

This Table contains the current recreation setting, compared to the changes. This Table greatly fails to describe the great scenic beauty of much of the area, how its complex terrain, canyons, red rhyolite rocky outcroppings and hoodoos, old growth windswept low sagebrush, mountain mahogany groves and aspen patches and mountain shrub snowbank communities all combine to make the area a very beautiful and extraordinary place. The sweeping expansive vistas – from Elk Mountain to the Jarbidge Mountains to Tijuana John, the Granite Range, the Snake Range, mountains on the north side of the Snake River Plain, and the Albion Range to the east – as well as other distant ranges – all combine to form spectacular wild land views. Much of the area rates as an undisturbed natural landscape.

There is no adequate visual survey or land use plan consideration for the entire Wells FO – in long-standing violation of FLPMA. In order to establish a valid Baseline, full and detailed surveys must be conducted – and the quality of the landscape at present thoroughly documented. This is also essential so any de-commissioning can restore all areas to their previous state. It is also essential to understand just how many hundreds of millions of dollars in visual mitigation alone are required if any development is authorized here.

This section ignores how the area would be managed under the Draft Jarbidge RMP Preferred Alternative. Why is there no analysis of this in any part of the Wind DEIS?

The red outlined boxes that describe a predicted post-project setting are inaccurate – and appear to be based on delusional wishful thinking, and not the harsh realities of trying to restore lands where massive blasting, bulldozing and other disturbance and destruction of rocks, boulders, and hoodoos covered with old growth lichens, and obliteration and fragmentation old growth vegetation communities that take centuries to develop under the best of circumstances will occur.

This further illustrates how these Appendices - which form the underlying basis for EIS analysis, are riddled with unsupported claims, rosy promises, and simplistic generalities. The often programmatic analysis of the EIS points to Appendices to support its claims – but the Appendices themselves lack substance and/or contain false or inaccurate information that is just not true in this arid and complex Project Area.

Why is there no Category of Industrial Setting? That is what this entire area will become. Again, BLM appears to be using a methodology that was not designed for evaluating industrial energy facilities with such a huge landscape-scarring development, visual, and permanent noise Footprint. BLM has a box with “some noise”, when in fact there will be non-stop noise, a constant shadow-flicker effect, and all manner of cumulative visual disturbances – from greatly expanded bulldozed and dynamited road networks up steep grades or across the top of sweeping once-beautiful high desert ridgelines. This wouldn’t be “front country” it would be an industrial zone. Where is any analysis of putting toilets, trailheads, etc. that are mentioned in this sensitive area? Does this mean OHV trailheads, since the developer is courting the

OHV interests? What adverse impacts will expanded OHV use and even trailheads specifically for OHVs have on wildlife, soils, vegetation, watersheds? Why is there not full analysis of all of this?

Visual intrusions are also related to the integrity of habitats for species like sage-grouse that are sensitive to intrusions of vertical objects into their visual filed.

A modern day analysis of visual and horizon pollution must be provided – not something based on an old 1980s BLM manual with site visits on a foggy day.

Since the ranchers in the area will profit enormously from the wind industrial development, it is very likely that portions of roads that may cross private lands that are not now closed - will end up being closed to hide the severe impacts of the wind development from the public. All roads and areas that will remain open during the life of the project must be clearly laid out in mapping and analysis in a SEIS.

Plus, will there be any controls on how the project unfolds across private or state lands in the project area? What will any differences be? Since there have not been BM surveys across the private lands – it is impossible to understand the severity of impacts.

Operation/Noise 4A

This is greatly inadequate. How does noise change – depending on how the turbines are operating, season of year, atmospheric conditions, etc.

Where is there an analysis of noise levels during all seasons of the year in sage-grouse and big game habitats? What are the frequencies of all the noise that will be generated, and how might they affect migratory birds, sage-grouse, big game, bats? Where is an analysis of noise levels impacting scenic view areas, or wildlife observation areas, or critical wintering, nesting or other habitats?

What will road noise be - single events or multiple events – for all road networks, gravel pits, etc. in the Project Footprint? What noise would be associated with water pumping and release if the huge proposed storage reservoir project is built by Corral Creek?

Visual Simulations

Why would BLM provide expensive fold-out photos with multiple views featuring the bath tub ring shoreline of Salmon Falls Reservoir? Both KOP2 and KOP 3 feature the Reservoir bathtub ring view.

The project would be visible from Highway 93 in many areas. KOP 1.

Why don’t the windmills drawn into KOP 13 look as big as the KOP 12 ones?

Just look at the visibility of the MET tower in KOP 12.

In many areas, turbines will be visible from BOTH sides of the Monument Springs road, creating a hellish industrial appearance with no visual relief at all – and the experience will be further degraded by turbine noise, herbicide stench from sprayed weeds, etc.

These static photos do not illustrate the full impacts of the moving turbines, shadow flicker, night lights, etc.

There are many other visual points where analysis must be conducted– how visible will the windmills be in all areas with abundant sage-grouse scat/droppings pre-MET tower?

Where are these areas? Where would visitors hike along a ridge enjoying views of the Jarbidge Mountains and Elk Mountain – and how will the project destroy these scenic vistas?

How will views from the Jarbidge Wilderness at night be ruined?

WHERE in the entire project area will a sage-grouse be able to move east-west across the Project Area, and not be in sight of a wind turbine? Won't the turbines often be positioned in precisely the low sagebrush habitats favored by grouse?

Map Figure 2.5-2. BLM will have to amend the RMP class over a much greater area than 0.5 miles if it honestly takes into effect shadow flicker, severe roadcut gashes, all manner of batch plant and other disturbances. An accurate and honest assessment must be made here.

2.5.3.2 explains BLM's illegal attempt to thwart the outcome of the new RMP process, and change the current RMP to allow this wholesale destruction to occur prior to finalizing the RMP. To do so, BLM would strip RMP protections as shown here.

Then, **after stripping the protections, the EIS shamelessly claims to "mitigate", "protect and conserve habitat" and to "minimize" impacts**. These claims are completely untrue. Any developer that would refuse to consider alternative siting, and insist on ruining this beautiful place including through stripping and gutting Land Use protections, cannot credibly be believed to be "protecting and conserving". Be honest, and quit misleading the public.

It is not on-site "mitigation" to restore areas disturbed. This is a basic requirement and standard practice with any project.

There is no certainty or specificity provided for any of the claimed off-site "mitigation". Where and how would any habitat be enhanced, restored or created, and how would it be managed? What would the real world effects on sage-grouse, pygmy rabbit, Brewer's sparrow, redband trout population, rare plant, or other species' sustainability and viability be? 2-43 also states: "*each of these mitigation actions could be implemented on lands which are acquired outright, secured under a conservation easement, or subject to some other legal agreement …"*. There is no certainty of any kind associated with this –other than that money would change hands. There is no certainty what any conservation easement would entail. There is no indication that the quality of habitat or effectiveness of the action is being taken into account. Please recall the Bombing Range Buyout where Sen. Brackett received a large sum for –in the end – not ever removing cattle from public land. Since the Air Force turned around and let him graze the very same lands where he had just been bought out. We fear more of the same here, under the supposed "conservation"/mitigation actions. Easements will be bought for outlandish sums on lands with little development threat to "save" lands from non-existent Condo development threats. Yet high levels of grazing and other disturbance are likely to continue as usual – with a net gain of Zero for sage-grouse, but lots of money spread around to landowners.

Where would these conservation easements be located, and how would they actually effectively conserve sage-grouse to any significance? How is this balanced with the loss of critical habitats for a core population shared between states? Would the same ranchers that are promoting wind farm development – or their relatives - profit from purchase of conservation easements? WHAT specific terms would be included in any conservation easement? What threat are lands actually under that would make a conservation easement worthwhile? How enforceable will any easement be?

16 million dollars over the life of the project is greatly inadequate. A billion dollars or more would be required to allow purchase of enough land accompanied by restoration activities (removal of livestock, harmful fencing and water developments, re-establishment of natives, etc.). BUT there is no block or combination of parcels of land that can replace the unique combination of habitats in this landscape, so even this amount would not make up for the calamitous loss caused by this RES project.

We note that it is highly likely that grazing would continue on "easements" – and lands where conservation easements may be purchased are under no current threat of development – so it is unclear what the purpose or effectiveness of conservation easements would actually be – except to enrich local land owners.

DEIS Summary Comparisons

There is insufficient or no discussion of many critical soils concerns: Wind erosion; eroding roadcuts; soil erosion in both wind and water; hydrological process disruption; effects on surface water resources; damage to microbiotic crusts, water sheeting down and off roads and cutting gullies, etc.

As discussed elsewhere, we do not believe necessary animal occurrence and habitat use baseline studies to develop accurate predictions of mortalities of birds and bats have been conducted. See concerns about Young et al. report. See Dobkin and Sauder 2004.

Will BLM allow blasting during nesting season? A five mile buffer should be applied here, too. The raptor prey base would be affected by habitat fragmentation, road mortality weed invasions, and a myriad of factors you have ignored.

What is the magnitude and severity of the visual impacts?

Existing RMP

The RMP had many Objectives that have direct bearing on the health and maintenance of lands and wildlife affected by this proposal. BLM has provided no evidence that it has fulfilled these management goals, including: "improve" lands in poor or fair condition; providing for particular numbers of mule deer throughout the year; providing for antelope; "maintain or improve" crucial deer winter range and sage-grouse brood rearing habitat acreages; protect ferruginous hawks from disturbance; control surface-disturbing activities on soils with high erosion hazard; protect any known and potential ferruginous hawk nesting sites; restrict activity near ferruginous hawk nest sites from March-July; NSO within 1/2 mile of ferruginous hawk nests; maintain cover in deer migration routes; protect meadow seeps and springs; improve raptor habitat.

BLM must evaluate its progress, after 20 years, in meeting all of these RMP Objectives. Have they been met? If not, how will this industrial wind project move BLM further away from meeting these promised objectives, and its commitments to the public? And if the measures have not been protective enough, musn't BLM apply even more protections with this industrial wind development?

BLM has too narrowly limited the range of scoping issues. The Proposed RMP amendment is a gift to a wind developer who has refused to examine viable alternatives. It is outrageous that an energy developer can appear on the scene – and then suddenly public lands protections that have been in place for 25 years are stripped, gutted or weakened.

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Fence and Powerline Collision Concerns

Information from the Connelly IDFG PR Report on fence mortality on the Jarbidge, and Wyoming Game and Fish fence mortality studies is not examined. *These data suggest sage-grouse fence collision during the breeding season was relatively common and widespread, and corroborate previous studies suggesting grouse are susceptible to infrastructure collision*. IDFG Progress Report p. 4

The recent Stevens Thesis describes:

Powerline collisions: Beck et al. (2006) reported 33% of all mortality of radio-marked juvenile sage-grouse on an Idaho study area was caused by **collision with power lines**. IDFG PR p. 3

Fence densities: Fence densities exceed 2 km/km2 in many areas occupied by sage grouse (Knick et al. 2011), but impacts of fences on sage-grouse remain unknown (Braun 1998). P. 3. They are now increasingly known, and known to be severe.

Varying, degraded and fragmented habitat conditions faced by this population of sage-grouse were discussed: *However, habitat conditions were variable and ranged from dense stands of sagebrush to bare pasture and large stands of crested wheatgrass (Agropyron cristatum). Cheatgrass (Bromus tectorum) was also common on the study area. Additionally, riparian areas in the southern portion of Browns Bench commonly contained stands of big sagebrush*. p. 13-14. Essentially, portions of lands critical to sage-grouse and in and near the core area are under serious stress already. Better condition lands in portions of China Mountain are critical, especially as climate change and/or weed invasions may result in upward elevational movement of species. The wind development would destroy these better condition remnant areas.

Probability of sage-grouse fence collision presence per square-km was related to region, topographic ruggedness, and fence length, and was conditional on these factors. Sage-grouse collision counts per square-km were influenced by distance to nearest lek. P. 103.

This Thesis also provides more evidence of low Jarbidge sage-grouse populations (relative to other areas). P. 104-105. The DEIS fails to adequately take into account that numbers are very low, and since the wind farm would destroy the best remaining habitat for a plummeting population of birds, the RES wind farm is very likely to push the population over the brink.

The report states: *Differences in broad-scale sage-grouse population densities seem the most plausible explanation for regional differences in collision risk. Landscape-scale sage-grouse lek counts observed in this study suggested broad-scale population densities may influence sage-grouse fence collision risk on southern Idaho breeding areas. Lek counts within 8 km of sampling areas in the BD and US regions were more than double those observed in the MV region. Subsequently, both probability of sage-grouse collision presence and expected collision counts were greater in the BD and US regions than the MV region. Landscape scale lek counts were relatively similar between the BD and US regions, as was expected collision risk. Regional variation of avian-infrastructure collision risk was related to local population indices for a variety of avian species in Scotland, Spain, and South Africa (Baines and Andrew 2003, Barrios and Rodríguez 2004, Shaw et al. 2010).*

Land managers have expressed concerns that reflective markers may be too conspicuous, and therefore aesthetically unpleasing for private landowners and public land users (B. Stevens, University of Idaho, personal observation). However, sage-grouse behavioral ecology and current research on avian vision suggests highly conspicuous markers may be necessary. P. 155.

We emphasize that the grouse appear unable to tolerate much visual intrusion. Yet the project will impose huge vertical and moving objects, flashing bright lights during dim light periods when birds are active, even more fences likely heavily marked, moving vehicles, building compounds - and all manner of other visual intrusion into habitats essential for grouse to fulfill their annual needs, as well as to provide habitat connectivity between populations.

Data suggest sage-grouse collision risk may be greatest in areas with locally abundant sage-grouse populations [BUT with small populations that characterize the Jarbidge – losses may be more significant???], and for fence segments in close proximity to sage-grouse leks. My data also show a strong reduction in sage-grouse fence collision frequency with reflective markers placed in potentially high risk areas, but some level of collision risk should still be expected in extreme circumstances with fences very close to large leks. ***Fence removal may be a desired alternative to marking in these circumstances if collision risk is deemed unacceptable****.* P. 157

Lastly, unpublished reports have suggested fence collision risk may be high in some high-density winter areas (Danvir 2002). Therefore, more research is necessary to determine sage-grouse fence collision risk in spaces and times outside of breeding seasons and areas. P. 158. The wind Project includes important winter habitat.

This study also describes how quickly carcasses in the Jarbidge were scavenged. This appears to indicate an abundance of scavengers including mesopredators.

See: **IMPACTS OF FENCES ON GREATER SAGE-GROUSE IN IDAHO: COLLISION, MITIGATION, AND SPATIAL ECOLOGY.** Master's Thesis, University of Idaho, Bryan S. Stevens May 2011

What impacts to birds and bats would the transmission line have? What are all important habitats within 10 miles of this powerline? Please include roosts, seasonal use areas, etc. We have seen avian mortalities associated with powerlines near water bodies – example – dead great blue herons.

What will the cumulative impacts be?

Alternatives Failures

The EIS fails to analyze an adequate range of project alternatives, as well as alternative conditions to be imposed on right of way grants.

DEIS at 2-44 admits wind project effects depend on location, geography, and natural setting. Yet the EIS does not provide adequate Baseline info to understand these factors in the unique browns bench-China Mountain landscape. It also does not provide site-specific details and locations of all parts of the project so that alternatives can be evaluated.

There is not adequate pre-project migratory and sensitive bird species information to understand alternative effects. A minimum of three years comprehensive baseline monitoring (including with no MET towers present) is necessary. No night-time radar studies are reported for migratory birds throughout the spring migration period, and only a single year raptor and point count study was done. It is impossible to understand the degree and severity of impacts with such data gaps.

The EIS admits that some 2008 studies did not begin until June, due to access issues! This means that large numbers of migrating birds were not detected. June 1 is the start date for breeding bird surveys

under USFWS BBS counts. This roughly means that nearly all migrants in most years have already arrived at their breeding grounds – by the time RES did necessary studies. So the abundance of migrants that pass through would not have been detected in the daylight surveys. And RES never did spring night radar studies at all – despite spring wind patterns that support migrant use of this landscape. The inaccessible nature of this rugged wild landscape until June demonstrates its lack of suitability for an industrial wind project. See also Concerns Bio Report (Young 2009) with these comments.

The developer is proposing a Phased Approach to make sure it has a foot in the door. Once a single turbine gets put in place here, the momentum for development will be so great that it will be very difficult is not impossible to stop further development. Just exactly what will happen when wildlife or other impacts are adverse?

EIS 2-46 states that "a phased approach will allow BLM to monitor and confirm that impacts are as predicted in Chapter 4". This makes no sense – as a reasonable person would read the section on sage-grouse in Chapters 3 and 4, understand that RMP protections are to be stripped for the developer, and assume a population collapse would occur. A reasonable person would make dire predictions for sage-grouse and other imperiled and sensitive species. What does BLM mean by "impacts as predicted in Chapter 4"? The endless Tables of exact acreages of disturbance? And what happens if they aren't the same?

These are complex biological systems, and species in peril here are long-lived – sage grouse, golden eagle, rare bats, and some migratory birds live for several years – and some species over a decade. The full effects of any disturbance in one Phase may take a significant period of time to unfold.

Monitoring for 7 years does not ensure anything of significance will actually happen as declines occur. The DEIS makes various claims about monitoring that would be conducted. But all the monitoring in the world won't make up for siting this industrial facility in such a terrible location. What specific monitoring, and rock solid threshold exceedance criteria will be used to trigger removal of any and all turbines? Daily monitoring for mortality must occur, and a third party contractor must report directly to BLM with results posted on-line for public review. All the money for sage-grouse, eagle and other monitoring will not serve to save or protect these species that are known to be plummeting. There are no triggered actions such as removal of turbine arrays, or complete wind facility removal, that are required if monitoring shows significant losses or declines. So really – what good is monitoring without required mandatory actions linked to its findings?

Different areas here may be used differently by grouse, eagles, migratory birds – so the severity of effects in one area does not translate into the same effects in another area – in fact, the impacts are likely to be worse, or magnified. The animals cannot just move elsewhere, as there is no evidence that there is any unoccupied suitable habitat.

Phasing shows that BLM efforts to hide behind the Purpose and Need being exactly a certain amount of energy production may not be valid. If a certain amount of energy can not be produced (as with placing turbines on private land, or using other sites) – then BLM claims that the alternative can't be analyzed. One example of the Phasing being considered is 10 years! If a company can go for 10 years without the fully proposed project, this calls into question the Purpose and Need, and the BLM arbitrarily rejecting a much broader range of alternatives.

If the monitoring shows significant effects on populations, or if mortality or population decline thresholds are exceeded (we note none have been provided to date), then how will the developer ever be able to "meet" the Purpose and Need under a Phased development?

In a few years, this whole project, if BLM authorizes it, will be viewed as an environmentally destructive dinosaur. Renewable energy is fast moving beyond these reckless remote industrial wind farms to rooftop solar, and other less destructive development in already destroyed areas, and a distributive network and "smart grid". This project will propel sage-grouse to Listing under the ESA.

The DEIS seeks to minimize understanding of impacts by referring to acreages bulldozed. Ex: DEIS at 2-46, stating 837 acres would be disturbed. In fact, the impacts of the disturbance are much greater – with the Project having an immense adverse Footprint for all components of the affected environment. Since the specific information on geotechnical surveys, road location, location and amount of blasting, gravel sources, and much other information is not provided in relation to specific siting, it is impossible for BLM to understand even the geotechnical study heavy equipment crushing and destruction of old growth low sagebrush. Equipment that put up MET towers killed sagebrush plants in places with just one pass– so geotechnical work certainly will –in fact, in the Ely Spring Valley wind EIS, crushing of vegetation from geotechnical surveys was acknowledged. Here it is not. Why?

The bulldozed/blasted area is only one part of the severe of impacts. For visual, biological, recreational, watershed, ground and surface water values of the public lands, the footprint is immense – often several hundred square miles. RES China Mountain Wind Project's mortality of migratory birds and bats may affect populations over large parts of the American West, as well. The indirect and cumulative impacts of loss of habitat –coupled with the severe disturbances over the Project footprint are likely to sever connectivity between populations, and significantly contribute to local and regional population declines. Plus - noise is an impact. Noise during both construction and operation will not be confined to the bulldozed area – it will pollute animal species' habitats over a large distance, as well as interfere with recreational use and enjoyment. Disturbed soils will not stay confined to the bulldozed area – but will erode in both wind and water.

Phase 1 would be up to 100 turbines "that would provide up to 200 MW". According to the Purpose and Need, 200 MW is essential – not up to 200 MW. There is no reason an agreement with the power-purchasing utility can't be down-sized. There is no specificity, or certainty that 100 turbines would be put in place and/or that 200 MW would be produced. This is the type of loose phrasing that is used throughout. This is a massive engineering project – so why isn't engineering precision and detailed information provided?

There are small differences between the similarly destructive alternatives – with variations on the Phasing scheme - and/or small changes in location or number of turbines. Regrettably, there is no hard look at alternative project siting, the alternative that puts a greater density of turbines on private lands, significant alteration in access routes, or other reasonable actions. Why can't the north inbound hauling be done on the north Outbound route and why is a southern inbound route needed at all since the northern route can just be extended south? Why can't all cable/lines be laid on surface, or buried under roading? Why can't the concrete batch plant, deluxe O&M, buildings etc. be down on the cheatgrass/crested wheatgrass flats? Why is RES so intent on destroying significant areas of this rugged and beautiful wild landscape with this project?

B2a and B2b locations are only slightly different (DEIS at 2-49). There is no exact site-specific info provided for any turbine or road location at this point. Both the Jarbidge and Wells RMP would need to be amended in others. Yet BLM claims it does not have to amend the Wells RMP.

B2a, B2b and B2c are all quite similar. Why aren't access routes clearly shown on mapping as being part of all alternatives here, and why isn't much more detailed mapping of all facility components provided so that a reader, or visitor to the proposed project area, can understand what will really be destroyed? The northern inbound haul route would remain the same, a concrete plant would be located on the mountain

top under c as under the others. Is this being considered because political arm-twisting may be able to more readily silence opposition in Nevada? So RES gets its foot in the door via Nevada habitat destruction and turbine placement first – while getting a signed ROD for the entire area, assuring later destruction to the north?

There is no certainty that any or all of the seasonal occupancy restrictions and other requirements under the Wells RMP would actually be followed. BLM issues scads of waivers to energy developers – witness Oil and Gas in Wyoming. For example, BLM issued many hundreds of waivers for oil and gas in Wyoming from 2000 to 2008. WWP has recently had first hand experience with Ely BLM following this same pattern for industrial wind energy on public lands – with Ely BLM issuing a waiver for industrial wind facility construction on public lands allowing project disturbance by burrowing owl burrows. Pliant BLM managers bend under the political muscle of developers. BLM RODs are written with weasel words and uncertainty that developers pounce on – and BLM bend sand issues waivers. See Spring Valley ROD, for example of weasel words "if feasible", "where appropriate", etc. The political reality has to be analyzed as part of the "hard look" here.

The willingness of BLM to scrap RMP protections to allow the wind development to destroy the most intact remaining habitat in the entire Jarbidge FO and a landscape of regional if not national significance shows how little the current Jarbidge BLM cares about conservation or supposed protections. These protections would be stripped in a context where sage-grouse and other wildlife, watersheds, and recreation have already suffered such severe losses that BLM itself has acknowledged. BLM claims it would somehow not have to amend the Wells RMP when this project would clearly violate that RMP, too. It also appears that BLM is proposing a lower bar for avoidance protections there, and is treating its interpretation of "avoidance" criteria and other RMP protections differently in Idaho vs. Nevada.

The scale of this project – and roading, gravel, year-round expanded access and disturbance, the huge and intrusive visual, noise and nightlight disturbance, as well as other impacts – all show how severe the disturbance will be under any combination of Phased or other actions.

Authorizing facilities under separate ROW grants just piecemeals the process even further. Why is this proposed? How many ROWS actually are being proposed? So if there is a legal challenge, smaller parts can already be built – and thus the developer can claim even more investment and harm if the project were to be stopped?

2-58. Alt. C. Siting turbines 2 miles from leks will make minimal difference - since the grouse use and move across an entire landscape in the course of a year. This is especially the case with a project of this magnitude and immense Footprint on all components of the habitat across this landscape area used by sage-grouse in their annual cycle.

A minimum five miles avoidance distance must be applied – especially in this case, where there has been so much habitat lost. See Doherty et al. 2010. The entire project area on BLM land is critical to wildlife, so it is impossible to claim more than minimal "mitigation" from any of the paltry and uncertain measures in the Appendices that often have their own built in escape clauses so waivers won't even be required.

How does Lud Drexler – a developed reservoir campground - get more concern for viewsheds than do the inventoried roadless lands/lands with wilderness characteristics, or the visual intrusion into important grouse seasonal use areas/habitats?

Alt. D. Thinning out the turbines a little won't make a real difference. The impacts - noise, visual pollution including night lights, habitat disturbance and destruction from a massive road network– and overall Footprint of the project is still immense. Are turbines planned closer to one another than described

in the DEIS? Why isn't a POD posted for full public review? BLM is withholding critical information from public review.

Alt. E. Same concerns as above. The stipulations are loose, uncertain, likely to be waived at any time by BLM under pressure from the developer – and this is true across all alternatives. Example: "visual or scenic values will be considered …" – what happens after the consideration? "Avoid or minimize" means that a critical nesting or other habitat area will not have to be avoided – just be destroyed with impacts claimed to be "minimized". What does "avoid" mean? "Minimize"? All terms must be defined, and valid scientific analysis conducted to develop a range of precautionary actions so any of the so-called mitigations applied can indeed be shown to minimize impacts.

Why only in Alt E is the Instruction Memo ID-2010-039 discussed? "Large scale construction activities shall be avoided within 4 miles (6.4 km.) of occupied or undetermined sage-grouse leks". After mentioning this Memo, the DEIS immediately starts rattling off exceptions! Why aren't other recent BLM IMs mentioned as well?

Conducting nesting bird surveys as long as 14 days before work that would assure habitat destruction and disturbance of nesting migratory birds - and is greatly inadequate. Does BLM really think that during the compressed spring nesting period, nest initiation may not occur quickly? This is certain to lead to significant disturbance and loss/abandonment of bird nests and/or young.

Where is detailed analysis supporting any claims that all the waivers and "outs" that BLM is proposing "meet the intent of the RMPs"? A reasonable person would come to just the opposite conclusion. There are different standards with the two RMPs. Will a lower bar of protection be applied in one area vs. another? This also illustrates the inherent conflicts in RMPs – where they promise all manner of things – without showing how conflicts between full-throttle development will be "balanced" with protecting rare species from adverse impacts and habitat destruction. The Wells RMP will also need to be amended.

Plus just how successful have the two RMPs been at actually protecting wildlife to date? This must be considered so that the adequacy of any protections can be understood – and the need for more comprehensive protections to be applied examined.

Alt. F. Siting turbines in VRM III areas is not compatible with the VRM III category – as the roading and other disturbance and vertical visual pollution will combine to overwhelm the viewshed – for human observers, and visual pollution sensitive species like sage-grouse. What is the purpose of Alt. F, other than so the wind company can point to having many alternatives that are all pretty much the same? Plus, the primary reason there are turbines in NV is to qualify for NV tax subsidies and "renewables" targets. See 2-73 discussing the power purchase agreement with NV – as justification for siting turbines in NV. The bottom line is the company should not have entered into a power purchase agreement where large areas of Idaho land are being sacrificed for NV. We stress that Alt. F doesn't have any turbines in NV – so that claim of having to have part of the project in NV, must have been false. Or is this not a valid alternative?

BLM greatly erred in not requiring the wind company to analyze a broad range of real and reasonable alternative project sites. Instead the public is provided with a series of very similar alternatives, and mind-numbing pages of "analysis of impacts" that focus on minor differences in land area bulldozed and/or dynamited. This appears to have been done to create the illusion to a casual reader of the EIS that something of substance has been provided. In fact, the exact opposite is true. Crucial baseline data collection, detailed analysis including full and fair accounting of risks and "worst case" scenarios, use of current science on the severe impacts of disturbance to arid lands and native biota are just not employed.

Since now we learn that the project can be "phased in" – there appears to be less of a need for any hurry with this. So there is more time for the developer to shift to other areas – including considering multiple sites with less, but sufficient, wind under an expanded range of alternatives in a SEIS. Certainly there must be some alternative site on degraded land and much closer to good infrastructure and in hospitable terrain – including if siting the 200 MW was split between areas - between Twin Falls and Las Vegas?

An alternative to site all parts on private lands can certainly be considered feasible. There is a lot of private land especially to the west. Move the access road, and project over there. Position turbines closer together – certainly if Alt F had 105 turbines – "that would provide up to 210 MW" – then 150 or 200 turbines in less windy private land could make up for that. If the rancher-landowners want this project so badly, then do this.

With DEIS statements like "that would provide up to 210 MW", there is no guarantee that this Alternative would meet the 200 MW mark. There has never been any explanation for why a specific MW output is so essential. Companies seeking massive taxpayer-guaranteed loans – where the public will be stuck bailing out the developer if they can't make loan payments, can certainly make do with fewer turbines, or more turbines and less extreme but more consistent wind in a much more environmentally responsible location.

The developer rejects shorter turbines – but just several years ago, weren't turbines were much smaller than the behemoths proposed for China Mountain?

The BLM must require that the developer consider alternative locations – including the areas with adequate wind in the weed wastelands of the northern Jarbidge FO that BLM itself has identified in the draft Jarbidge RMP, splitting the project up into two or more parts. Allowing the developer to point to a high wind spot on DOE mapping and say "we must have it", while not being required to analyze areas much closer to infrastructure – such as the Burley crested wheatgrass lands bordering Highway 93 by Salmon Falls Reservoir, or disturbed lands near I-80 or other similar areas – is just not tenable in a landscape facing so many threats.

Look at the proliferation of wind development on the Snake River Plain – in less windy lands but more consistent wind areas closer to existing infrastructure. What are the characteristics of winds in these areas – where wind development has exploded? How windy are the lands by Highway 93 east of Salmon Falls or by the Freeway (I-80) near Wells? They are certainly as windy as the private land that the developer is including. It is hard to understand why the private land is being included - unless it is to curry favor with powerful local rancher-landowners and providing millions of dollars to them for putting windmills in mediocre wind generation sites.

Many areas have as high a wind potential – Indeed a higher potential - than places on the Snake River Plain in Idaho where many hundreds of wind mills are now located. Why is RES so insistent on destroying this beautiful and irreplaceable intact site, where industrial wind impacts would be so immense? Is there more to it than meets the eye – with this project potentially being a steppingstone getting pieces of infrastructure in place with a "land grab" and ROW grab of sorts to be able to move water all over the place at some time in the future? To build a powerline, roading and other infrastructure closer to potential future mine or other foreseeable wind project areas?

DEIS Figures 2.13-1, 2.13-2, 2.13-3 could have the turbines closer together, on more finger ridges, etc. on private lands. An important thing about these maps is that they show the infrastructure characteristics of the land to east of Salmon Falls Reservoir between Highway 93 and the Reservoir. There a large powerline already exists, energy corridors run, and the largest distance from the main road is 4 or so miles. The land is basically flat, and the habitat greatly altered by Burley BLM crested wheatgrass

seedings in an area that has much-reduced habitat values. This area must be considered under an expanded range of alternatives in a SEIS.

BLM is allowing the developer to ignore full consideration of such areas, and fails to take a "hard look" at a broad range of real alternatives. Certainly a project on degraded lands much closer to infrastructure would be much cheaper to build, and would be much more environmentally responsible. It would thus be much less of a burden on taxpayers and rate payers, as well. Why does the developer seem so intent on making this project into a huge financial undertaking maximizing damage to the environment? Why has BLM allowed this process to get this far without any real consideration of alternatives – as all the EIS Alts are variations on the same damaging theme?

While the EIS claims it can't bury power lines and do many other things because of cost – there is no legitimate examination of costs associated with the project. There is no analysis of costs of alternatives – including an expanded range of reasonable alternatives. What is the monetary value of losses to the public and public land resources? What is the cost to re-establish a population of sage-grouse, once this project wipes one out? Of course, that cost is likely to be externalized to taxpayers and the developer can skate away from the extirpations/extinctions that it causes. What is the "cost" of population extirpation? What is the "cost" to the local and regional economy over time of a beautiful wild land recreational setting with diverse wildlife populations destroyed forever, and thus recreational uses lost?

Why is the outbound haul route not inbound, too? It is much shorter, less damaging, and the County already greatly upgraded part of it south of Roseworth–blasting through rock outcroppings - apparently getting ready for the wind company in advance. Or why isn't a route on existing roads south from the Glenns Ferry area considered – through the crested wheatgrass weedlands of the northern and central Jarbidge where there is virtually no sagebrush remaining?

It is ridiculous for a wind company that is going to be blasting holes 30 feet deep or more through solid rock for footing turbines to complain that an underground line would result in continuous excavation so it could not be done. Put the line right by/and or under the "main" major roading.

We find it interesting that the alternative to remove turbines in the central part is rejected "because the overhead line would still be sited in a corridor", and "there is no scientific data indicating this would reduce potential impacts. Well then - there is no scientific data indicating that ANY of the supposed Alternatives would really reduce impacts – as is claimed in the Alternatives discussion. See DEIS 2-78, 2-79. So in essence, BLM has analyzed no alternatives that would really reduce impacts to any significant degree.

This EIS alternatives discussion is really an arbitrary and biased rejection of a range of viable alternatives, and refusal to consider reasonable areas like the Highway 93 Corridor, other degraded lands, or all private lands.

DEIS at 2-78 casts aside aboveground cable location due to potential rodent chewing. Cover the cable in metal then – it can't be that difficult for RES to outwit some rodents, can it?

DEIS at 2-79 eliminates an Alternative that would thin out turbines because "there was no indication that a reduction in turbines would benefit sage-grouse. Given that the current peer-reviewed literature on oil and gas development indicates that indirect effects to sage-grouse have been documented for up to 4 miles from development (Walker, Naugle, Doherty, 2007)". Yet none of the alternatives BLM did analyze would "benefit" sage grouse, either. We also take exception to the use of "benefit" here. None of these massive disturbance alternatives benefit grouse in anyway. Perhaps the use of "significantly reduce impacts to grouse" would be more appropriate? Or is BLM afraid to state this bluntly – as it foresees

political armtwisting coming down with the FEIS – where BLM and other agency biologists will likely be forced to tie themselves in knots and back away from current science – and claim that the minimal and greatly inadequate DEIS BMPs and a few other meager measures will suddenly substantially reduce impacts? We fear this will be the case.

Why did BLM eliminate analysis of an alternative that would site turbines 5 (or 4 miles for that matter) miles from leks (or leks and winter habitats)? Where are lands five miles from leks between Twin Falls and Las Vegas - with fair or better wind? With consistent rather than violent or erratic winds?

Table 2.15-1. Summary of Resource Impacts for all Alternatives

As we discuss throughout, there is not adequate site-specific baseline information provided to establish how immense the project Footprint-disturbance zone and impacts will be for all affected values of the public lands.

An adequate current Baseline under No Action is not provided in site-specific detail to allow understanding of the current air quality, scenic geologic features, soils, microbiotic crusts, ground and surface waters, riparian areas, upland vegetation including intact and mature and old growth communities or unique species assemblages, current extent of cheatgrass and risk of weed proliferation, special status animal habitats and populations habitat connectivity, etc. The current conditions are not adequately described.

Impacts of environmental degradation and loss from gravel, geotechnical, and many other project disturbances are not presented. The location, timing, and amount of blasting, and thus permanent irreversible destruction of scenic rock formations in this very beautiful area is not even known. How many turbines will be sited in bedrock – where craters will need to be blown 30 feet deep or greater?

The severe degree of visual scarring, including affecting important geologic features worthy of protection in an ACEC, is not examined.

It is outrageous that the EIS constantly lists every acre that will not be destroyed by the wind developer as "habitat avoided" in its Alternatives comparisons. See Table 2.15-1.

In most instances essential habitat components of food, cover, and space are not at all "avoided" in the immense Footprint of the project. Examples: Deer, elk, pronghorn habitats and population impacts. In examining sage-grouse, the DEIS claims habitats are "avoided" and only affect (for example with Alt. B) 389 Key acres removed in Phase 1 or some other such number. This disregards the immense visual, noise, and habitat disturbance footprint of the project. These comparison Tables do not provide a reasonable and biologically valid comparison of the very similar destructive alternatives, they fail to provide for added animal mortality from vehicle deaths on all of the new and/or dramatically upgraded roads, and are plagued with many other omissions as well.

The claims of "habitats avoided" throughout the comparison effort are really BLM grasping at straws – in desperation to try to find any way to spin this development as having fewer impacts. It is not a biologically meaningful comparison. There has been no evaluation of the quality or significance to the animal population of the habitat claimed to be avoided –vs. that which will be altered, degraded, fragmented or destroyed by the industrial wind development.

The Table shows that even with the limited amount of information collected to date, it is predicted that "an estimated 30,000 passerine fatalities would occur over 30-year ROW grant" (DEIS at 2-95). We stress that surveys to date are greatly inadequate, and do not appear to include night-time or low visibility

inclement weather mortality when huge kills may occur in spring. The DEIS provides no data on night-time migrants – so this figure of 30,000 is a gross underestimate. It is very likely that the facility could kill hundreds of thousands or even millions of birds.

720 raptor fatalities are estimated, and we believe this number will be much greater. Owls have not even been surveyed, and there have no been adequate multi-year migration and other surveys. No owl surveys have been conducted, despite the large numbers of burrowing owls and other owls having been known to be killed at some wind facilities. In Table 2.15.1, no fatality estimate is provided for golden eagles, but there are 5 golden eagle nests within 6 miles (DEIS at 3-88). The EIS admits: "collisions … could have adverse impacts on locally sensitive raptor populations, and regionally declining populations of golden eagles". Not "could", but "will" – and how significant and severe will those impacts be? How will they impact the viability of local and regional populations over the life of the project?

This area is prime golden eagle habitat – some of the best remaining in the region. But instead of following its own RMP, policies and federal laws to preserve golden eagles and other wildlife, the BLM proposes stripping RMP protections for the wind developer.

With bats, mortalities predicted based on the limited info collected are estimated **at 2,042 to 21,648 fatalities.** Here too the DEIS has failed to provide adequate migration radar studies critical for understanding bird and bat mortality, which will likely be much greater. See Attached Comments on Young et al.2009 Bio Report. And don't the large number of bats detected within the limited range of the Anabat devices show there will likely be hundreds of thousands of bats killed over time here? Will these same species then face death at Spring valley, Wilson Creek/Table, and other planned wind farms to the south? Or Gollaher Mtn. if that area is developed by Iberdrola or others? Or the Cotterell project – where we understand many eagle nesting areas are also jeopardized?

Livestock grazing is not a "resource" as claimed by the DEIS. It is a significant disturbance that causes a wide range of direct, indirect and cumulative harm to habitats and populations of plant and animal species of concern across the CESA and project footprint, as well as watersheds, recreation, and other factors.

DEIS comparisons repeatedly claim minor impacts from Operation & Maintenance. This is not valid given the high degree of human intrusion, new roading and greatly expanded human disturbances, noise, visual impacts and horizon pollution, weed spread, and other disturbances.

It is impossible to understand how supposed "reductions" in passerine and other fatalities in some alternatives were calculated in Table 2.15–1, given the similarity among alternatives.

Alt. E would indeed require amendments to both RMPs, as would all of these proposals.

Economic benefits claimed for many recent wind projects have been overblown by developers, and often end up being much less than claimed by project proponents and politicians. How do the economic benefits claimed by developers compare to what has occurred after development at other wind farms? A fair accounting of the adverse economic impacts, and losses to the public and public resources including losses in jobs dependent on recreational activities, must be provided. Recreational activities range from photography to birdwatching to hiking, hunting, fishing, camping, etc. The costs of local or regional extirpation of species must be assessed. The economic costs (and potential human health and economic repercussions too) of the large-scale losses of insect-eating birds and bats must also be analyzed.

Remote-controlled activity and sophisticated computer technology increasingly minimize the number of permanent workers employed even more. An honest and realistic analysis must be provided, based on remote control technology now employed or foreseeable over the next 30 years.

Transportation and access omits analysis of the greatly increased and roads caused by the project causing wildlife mortality (direct, indirect and cumulative impacts), and also disturbance, harassment, displacement, poaching from greatly expanded human use.

We are concerned that BLM casts aside lands with Wilderness values (Corral Creek and Black Canyon) and intrudes on the Rocky Canyon Proposed WSR. This is yet another way in which this development illegally undermines the new Jarbidge RMP process.

Table 2-15-1 fails to examine the adverse impacts of "temporary" fences, shifted and altered livestock use, and continued livestock use on rare species habitats. There would be potentially increased water sources and more intensive grazing use with power to move water around and further intensify livestock disturbance.

Table 2.15-2. This Table ignores the impacts of greatly increased human use of the expanded and upgraded road network. Impacts on air quality, geology, soils, water, upland vegetation, noxious weeds and invasive species especially flammable cheatgrass, mustards and other densely growing flammable weedy species that thrive in disturbed areas, special status plants, raptors, passerines/migratory birds, greater sage-grouse, pygmy rabbit sharptail grouse, bats, small mammals, reptiles, amphibians, and big game are very significant – and will be even worse if the full impact of the long-term Footprint of the roading and expanded use are considered. The cumulative impacts of both the turbines and the road network impacting animals must be examined. The full range of direct, indirect and cumulative adverse impacts of the project, roading, transmission line, gravel pits, and site-desiccating micro-climate effects of wind turbine operation on promoting and amplifying climate change impacts must be examined.

Air Quality

There is already significant mercury and other pollution in Salmon Falls Reservoir – linked to air pollution where mercury then falls out with precipitation. Mercury is released by gold mines in NV – and soils in some portions of the project area may also be high in mercury. Breaking apart rhyolite in construction activities may also result in increased arsenic pollution that contaminates waters. Increased erosion in wind and water, ad increased runoff and deposition in Salmon Falls and other waters is also likely.

There is no baseline provided of these environmental contaminants across the Project Footprint and an appropriate CESA, or the hazards they currently pose – let alone for the increased pollution and risk of harm from this massive disturbance of graveling 80 miles of wide roads, blasting turbine footings 30 feet deep, promoting flammable weeds, and other impacts.

The Browns Bench-China Mountain Borderlands area is precisely the kind of landscape that should be kept intact and protected to help buffer climate change effects, and to serve as a refuge to enable species to move upward in elevation if lower elevation habitats become too harsh or weed-choked. Instead, this project will tear apart an intact area, disturb snow deposition areas, and alter and hasten snowmelt, reduce infiltration and slow release of waters – to impacting sustainable perennial flows. It will promote fire-causing weeds, and expanded loss of native habitats – with loss of the site-anchoring and moderating impacts of sagebrush and other shrubs/trees. Plus the added stress of site heating – flat gravel road surfaces, and site-desiccating turbine air movement will be imposed. This will all feed into the site heating, drying and wildfire dangers posed by this facility and all connected actions. See WGFD 2009.

The full adverse project impact in disruption and loss of snowfields, reduction in spring/aquifer recharge, loss of site moderating vegetation components, loss of microbiotic crusts and vegetation that naturally

sequesters carbon - including when invasive species like cheatgrass overrun disturbed areas and move into currently intact mature and old growth native communities – all must be examined. These adverse impacts all will be further facilitated by livestock grazing and its chronic desertification impacts. See WWP Jarbidge RMP Comments, Jarbidge AMS (2007).

Feedlots and dairies also contribute significantly to air quality degradation in the airshed to the north. How polluted is the air – and how much might that increase with more dairies/feedlots?

The EIS states that the general remoteness of the site makes it relatively free of some air pollution – further illustrating how significant the area is. and as we previously describe – there is a serious mercury pollution issue, and likely other contaminants as well.

The full amount of pollution and greenhouse gases generated by all parts of this action must be laid out. This includes pollution in mining rare earths and other turbine material, manufacturing steel and other material, transport of raw materials and manufacturing, transport of material to the site, - i. e. in all components of materials/development, construction and operation of the facility.

DEIS at 4-12. Wind projects that are sited in inappropriate places like this one – do indeed generate air pollution. For example, how much air pollution will be generated by all the diesel equipment involved in "COM" – including bulldozing, gravel pits, snow plowing, worker travel, transmission line manufacture, turbine manufacture and transport, etc. Increased wildfires will generate air pollution, plus removal of vegetation and microbiotic crusts will destroy the ability of lands to naturally sequester carbon. This must be compared to numerous alternative sites (east of Salmon Falls Reservoir, private lands, closer to I-80, etc.) in areas that are already highly disturbed, and closer to substantial infrastructure. This is the only way to legitimately "minimize" impacts – and an expanded range of alternatives must be analyzed.

There is no certainty that the "dust suppression" will "effectively" suppress dust in windy environments. There is no guarantee that revegetation will be successful. In fact, it will be impossible or extraordinarily difficult – to re-establish vegetation on blasted apart rhyolite in this harsh cold windy environment. It will be impossible to control the proliferating cheatgrass and other weeds that will thrive on disturbance across the Project Footprint –no matter how much air, soil and water polluting herbicide is applied. We also stress that the detailed information on risks and hazards of herbicide use must be fully provided, along with the type and amounts that would be used.

BLM always pretends large projects in wild areas are somehow a "controlled" environment – like a farm field, where predicted results of rehab or supposed recovery will be guaranteed. They are not – and nearly all BLM efforts to farm public lands have had calamitous effects. Throughout Section IV of the EIS, the scale of the ecological problems that will be caused - and the difficulties/feasibility of dealing with them (let alone "minimizing" impacts - or being "effective") are not honestly examined.

Why isn't it recognized that source emissions will degrade the local air quality, too?

Why does the DEIS reference smoke from prescribed burning or wildfire dissipating to the SE? Is prescribed burning planned? Winds often blow north from Nevada – that is after all how much of the Nellis atomic bomb testing fallout reached Idaho, causing cancer clusters in Gem County, Custer County – and elsewhere. So pollution from the Project activity is likely to impact the already poor air quality in the Magic Valley to the north.

It is telling that detailed information on winds, wind speed wind direction, constancy of winds, and other essential information necessary to understand the validity of claims and assumptions made by the proponent are not provided. Not even a wind rose is provided to show wind direction and other

information year-round. It is our observation that this landscape is characterized by relative calm punctuated by strong winds – and that winds are not constant. Aren't constant winds desired for wind projects?

DEIS at 4-13 admits that all the project roading would cause an increase in user-created roads and fugitive dust and tailpipe emissions.

Assumptions of wind erosion occurring once per day on disturbed areas, and many other assumptions here, are not valid. Does the wind only blow in one gusty period each day? These assumptions cannot be made until much more detail on specific project component siting is provided. There are many areas of highly erodible soils, and vegetation and rocks/outcroppings that may moderate wind effects will be greatly altered and removed or simplified by project destruction. Thus, the micro-site characteristics that serve to provide the conditions required by mountain big sagebrush, mountain mahogany, low sagebrush, rare plants, etc. will be altered – and the potential for slowing down erosion, moderating winds at ground level, will be modified or lost.

Just what are the chemicals that will be used in blasting – and how will they pollute air, ground, and surface waters? (DEIS at 4-15). Again, WHAT are the carbon emissions with all components of the project? To what degree will the ability of lands to absorb carbon and buffer the public lands vegetation and animal communities from adverse climate change impacts be lost?

The assumptions made throughout this section claiming limited impacts are not valid. Of course blasting will be required! Yet the amount of blasting and its impacts are not carefully examined.

Geology/Soils

The unique and scenic geological features, combined with the beautiful structurally complex intricately interspersed plant communities, must be described in full detail for understanding of the appealing nature of the area, its scenic beauty, and scientific interest.

The project proposes roads blasted into terrain that is much too steep, in lands where significant erosion, including in runoff, is guaranteed. How might the impacts of blasting 30 foot deep holes for turbines and other actions alter underlying strata?

Disturbed soils will be deposited on vegetation and choke microbiotic crusts, promoting weed expansion.

At DEIS 3-10, why is there no detailed analysis of the current baseline of grazing effects on soils and microbiotic crusts, and the degree to which added project disturbance will amplify these impacts? If an area is already degraded, it is already under stress, and the impacts of the wind development disturbance may be even more severe.

What other harmful materials besides arsenic may be released from breaking/crushing/dynamiting rocks?

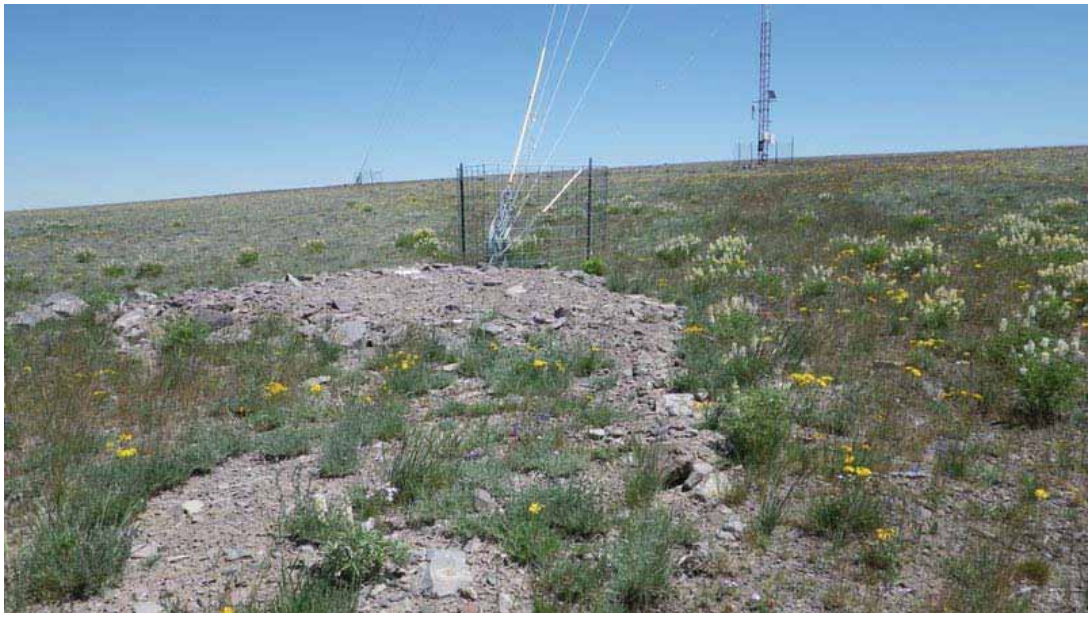
The discussion of geology fails to describe the beautiful and highly scenic red rhyolite hoodoos, canyons, talus, and coarse red gravel areas - including the scenic beauty when a bonanza of wildflowers are blooming in this remarkable setting.

It fails to describe how the disturbance and destruction of the scenic red platy talus bands, hoodoos and rock outcroppings, and complexly interspersed rocks, as well as the lovely multi-hued old growth lichen covering on rocks will be destroyed by all aspects of this project. The multi-hued lichens of black, chartreuse, orange, and gray-green color, often along with white coloration on rimrocks, boulders and

hoodoos from woodrat urine and/or perching raptors - creates a visually intriguing and highly diverse and appealing appearance.

The areas where soils have been disturbed and rocks dug up for mooring of the MET towers vividly illustrates the noticeable ugly visual impacts of disturbance to rocks and soils. The MET tower disturbed rocks and boulders are pale and unweathered, and overturned boulders often have a dull white ugly mineralization pattern. This contrasts sharply with the complex deeper and richer colors and often lichenized surfaces of the talus, boulders, hoodooos, rimrocks with weathering that results in brighter colors, and in many areas a gleam to the weathered talus. It certainly takes many hundreds of years - or longer – for this weathering process to take place, and for development of old growth and mature colorful lichens that greatly add to the viewing experience.

See Photo of MET disturbance – just mooring the MET towers required blasting, as described in the 2008 MET Tower EA.



Now weeds like tumblemustard and cheatgrass are invading sites – like at this Nevada MET tower pictured.

Plus, subtle prehistoric rock blinds abound in many areas, and are located in relation to landscape features, views, etc. This setting will be destroyed forever by the large-scale disturbance to be imposed.

It is also critical that detailed analysis of underlying strata occur, including the presence of faults, and relationship between strata and springs, seeps, riparian areas. Full analysis of how any wind farm, storage battery or other development may alter strata, geologic stability, and other conditions must be provided.

Visual Concerns

The 2008 MET tower EA stated:

A GIS viewshed analysis was conducted for the three proposed 180-foot tall met towers to determine the met tower visibility from the surrounding landscape (Figure 6). Figure 6 is based on a surface analysis model using the ArcGIS 9.2 spatial analysis viewshed extension. The model uses a 33-foot (10-meter) Digital Elevation Model (USGS National Elevation Dataset – 1:24,000-scale), and is based on 180-foot tall structures located at each proposed met tower location, which is the full height of the proposed towers. (MET Tower EA).

Mapping was apparently purposefully omitted from the on-line version of the EA – but the hard copy map showed that the 180 foot tall MET towers, would be visible over a vast area. Where is similar DEIS analysis for all aspects of this entire project and its Footprint – including the road network?

A recent study found that avian collision fatalities associated with permanent met towers supported by guy wires were approximately 4 times higher than wind turbines of similar height that did not have guy wires …". Yet BLM has never even bothered to require that the developer have markers to increase visibility on all of the towers, as WWP site visits have detected.

The MET EA also admitted: Bats may collide with existing met tower guy wires, communication towers, proposed transmission lines (China Mountain and SWIP projects), proposed wind turbines (China Mountain Wind Project), or other existing infrastructure on the landscape.

The MET EA claimed the blasting disturbance was "short term" – and never examined the outcome – i.e. displaced visually incongruent permanently altered rocks and geologic features.

See preceding Visual discussion related to BLM Appendices that serve as basis for the flawed DEIS analysis.

We have previously discussed impacts of night lighting in drawing migratory birds to their death during cloudy weather conditions. An additional concern related to light pollution that spans both visual and biological concerns. Lighting may attract or disrupt insects, with impacts to the birds, bats and other biota that rely on insects for food, or native plants that rely on insects for pollination.

Artificial light has the potential to significantly disrupt ecosystems *and it has long been of concern to conservationists. It is widely observed that some invertebrates, such as moths, are attracted to artificial lights at night. In addition the polarisation of light by shiny surfaces is a significant problem as it attracts aquatic insects, particularly egg laying females, away from water, and reflected light has the potential to attract pollinators and impact on their populations, predators and pollination rates.*

Artificial light can significantly disrupt the natural light/dark patterns.
Many invertebrates depend on the natural rhythms of day-night and seasonal and lunar changes to light levels. As a result artificial lighting has several negative impacts on a wide range of invertebrates including disrupting their feeding, breeding and movement which may reduce and fragment populations. See Charlotte Bruce-White and Matt Shardlow 2011, "The effect of artificial light on invertebrates".

Soils, Microbiotic Crusts

Microbiotic crust information is greatly inadequate, Crusts that are a frontline defense against invasive species will be destroyed by construction, extended roading and OHV use and "user-created" roads, and shifts and/or facilitation of livestock disturbance. Crusts will be covered with windblown eroding soils, choked with windblown weeds from project-disturbed areas, killed by herbicides applied and that may drift in air and water, etc. Crusts take many decades to recover, and essential information on the mature and old growth curst communities that will be destroyed, or altered - promoting weeds, erosion, and runoff, has not been provided. So there is no way to understand the degree and severity of impacts.

A full risk assessment must be provided dealing with loss of crusts. In all parts of this analysis, there is not sufficient examination of the No Action alternative. This flaw is compounded by the lack of substantial site-specific data over many part of the project Footprint.

The erosion information is simplistic and ignores the often severe runoff snowmelt and springtime runoff events, summer thunderstorms, overlapping and cumulative disturbances. For example, Table 4.1.3.3. "acres of soil disturbance". Road cut and turbine footing-disturbed areas impinge on surrounding soils, veg, etc. and set in motion a whole range of altered and accelerated erosion processes. For example, water running down roads creates new gullies off the side that cut into sideslopes, exacerbate downcutting of intermittent drainages, and promote accelerated erosion processes in the watershed. Details necessary to understand just how severe –and how large - the area of actual project-related disturbance will be is lacking. While this simplistic analysis of acres bulldozed/dynamited = acres of soils, vegetation, drainages etc. impacted --- may be applicable in a flat farm field setting, it is greatly in adequate to form the basis of analysis in a wild land setting prone to violent storm or runoff events in rocky, rugged and complex terrain. This same concern over lack of essential site-specific details applies to all the components of the environment examined in the DEIS.

Many areas will suffer the combined effects of both wind and water erosion – not just one or the other.

How much soil loss is currently occurring? How much topsoil (A horizon) has already been lost in many areas? Where has this lost occurred in relation to the disturbances of the Project? How will other overlapping and cumulative disturbances add to the erosion processes in wind and water, retard or prevent rehab, and otherwise alter the rosy predictions of the DEIS? What are the rates of soil formation or deposition of windblown loess soils here? It is apparent that in low sagebrush and other sites soil formation is exceedingly slow.

We also stress that "short term" here is mis-used. The EIS wrongly claims short term impacts as areas will be "revegetated shortly thereafter". The extreme difficulty of re-establishing vegetation in these sites is ignored. Even under the best of circumstances, any recovery of low sagebrush communities may take 100-200 years or more. While BLM's assumption, like so much else with this DEIS may apply to a flat farm field, it is inaccurate in this high desert environment.

In much of the Chapter 4 Impacts analysis, the DEIS fixates its myopic analysis on a claimed specific acreage of bulldozed or dynamited disturbance – in this ever-"flexible" project. The EIS fails to provide necessary engineering, site-specific info to enable understanding of exactly what acreage might be

disturbed, and where. An agency cannot withhold information from public review until just before (or after it makes a decision.

Watersheds, Quality, Quantity - Ground and Surface Water Concerns

There is inadequate information in the DEIS on the baseline of ground and surface water aquifers, spring flows, type of spring, effects of livestock grazing, water "developments", roads and other disturbances. This includes the level of the aquifer, any documented declines, impacts of wells including those that may have already been drilled to support this project but that are not analyzed in the EIS, the ecological condition of watersheds and riparian habitats, flows over all seasons of the year and any known changes over time, adverse impacts of livestock water developments (spring gutting projects, pipelines, stock ponds plugging drainages and creating stagnant West Nile mosquito-promoting stock pond conditions. Threats to sustainable perennial flows posed by climate change are also unaddressed. These include declines in snowbanks that feed headwater springs, earlier snowmelt, flashier runoff events with greater erosive force, hotter conditions that favor shallow rooted flammable weeds, etc. These effects will be amplified by the snowbank and drainage network disturbance and other impacts of the project.

The degree and severity of current grazing, water "development", roading, and other disturbance are not provided in sufficient site-specific detail – so the direct, indirect and cumulative impacts cannot be assessed.

The DEIS admits that "headwater seep wetlands provide base flow support for downstream waters". DEIS 3-11. So how will this project reduce, alter or kill base flows? Flows of all springs, seeps, wet meadows, and downstream water sources?

A "desktop study" is greatly inadequate to understand the complexity of the aquifer and spring recharge and drainage systems in the area. DEIS 3-11. Full and detailed site-specific analysis must be conducted.

The DEIS admits the lack of info "other haul routes and the project area would be delineated for wetlands following final project design". So there is no way for the EIS to really assess impacts.

There are 31 springs acknowledged to occur within the project area, and an additional 60 springs "just outside". DEIS at 3-23. DEIS at 3-24 states "many springs have been developed for livestock". We are concerned that this project will impact undeveloped springs, as well as lead to further losses of flows across all springs, including those that are already "developed". Wells drilled for this project may also reduce flows. Where are all wells – and which ones will have water removed? Were wells drilled already for this project? How deep are they, what is the aquifer that they are drilled into, what spring/seep areas may be impacted?

Full and detailed analysis of the adverse impacts of all existing livestock developments must be provided. For example at Tank Spring where near-total reduction and loss of surface flows through combined effects of development and severe chronic grazing disturbance. Plus soil erosion caused by livestock and facility disturbance is further degrading and de-stabilizing the watershed processes.

We appreciate the DEIS snowbank map. This provides critical information on how unsuitable the area is for this development. Why in the world site a wind farm in an area with persistent snowdrifts that would have to be battled for half a year - plowed, de-iced (with chemicals?) etc. This is not any place for siting an industrial wind facility – not when there are millions of acres of lower elevation degraded ag and weedlands where wind could be placed. We are greatly concerned that the deep snowbanks in the Nevada portion of this area are not mapped in the EIS. Large areas of the Nevada portion are full of long-persisting snowbanks. WWP's field visit in late May 2011 found roads accessing the site blocked by

snowbanks. Development of a large-scale road network and road plowing and snow removal with the development will have significant adverse impacts for much of the year on wildlife. It will also alter snow deposition and watershed processes including infiltration.

The mapped RHCAs only consider areas one acre or greater in size (DEIS 3-12). This means that many smaller springs, seeps and intermittent/ephemeral drainages are not considered. There are many intermittent drainages often chronically degraded by livestock that deliver sediment to Salmon Falls and drainages that are not included in Figure 3.1-4-2. Many of these are also important sage-grouse brood rearing habitats.

There is not adequate assessment of the degree of livestock degradation, loss of flows through de-watering and livestock developments, and road impacts on waters and drainages, and the combined effects of these all related to private land waters and watershed areas. BLM does not conduct riparian health assessments across private lands.

NEPA requires that a detailed analysis supported by solid and systematic baseline surveys and inventories of biological and other resources on private lands in the Project area be provided. The private land portion of the project cannot exist independently of the public land portion under all alternatives evaluated in the EIS. The relevant test in the Ninth Circuit is “whether ‘each [action]’ could exist without the other”.

The EIS points to old, flawed BLM PFC data that does not reflect the degree and severity of watershed and surface water degradation in 2011. Cattle and/or sheep use was shifted to, and intensified, in many areas not burned in recent fires, including by building temporary fencing even in critical sage-grouse habitats. Then, in areas that burned in a series of past fires, BLM allowed grazing to resume prior to adequate recovery of protective woody and deep-rooted bank stabilizing herbaceous riparian vegetation. The end result was that stream reaches claimed to be in PFC in 2006 are now in fact significantly degraded. See WWP May 2011 Jarbidge Riparian Field Info. Example: China Creek, Browns Creek. BLM failed to conduct current and adequate assessments on springs and seeps across the Project area, and none have been done on the private areas impacted.

As recent WWP litigation has highlighted, BLM has not bothered to monitor the impacts of chronic annual livestock grazing and trampling disturbance, even though this was required under a federal court lawsuit Settlement Agreement.

Clover Creek waters are grossly polluted with sediment in the vicinity of the haul route already. Species like redband trout, and a rare mussel, the California floater, are greatly jeopardized by increased sediment loads that the project will cause. What mussels occur in other waters? Where is habitat unoccupied by native aquatic species that should be present in the stream system?

Ecological conditions affect the hydrology of these arid land riparian areas, and these effects are not examined based on current site-specific data.

The DEIS admits that water flows are already “highly variable”. DEIS 3-23. Where is data and analysis that provides site-specific information on this variability across the lands and waters affected by the project? How much more variable, “flashy”, and reduced in perennial flows will these drainage systems become as a result of this project? What will flow levels be as a result of this project –including under drought, early snowmelt, continued chronic livestock degradation and resultant lack of shading and stabilizing riparian vegetation - and other impacts?

Large areas of Cottonwood Creek and other waters in NV and surrounding the Project Area are stressed by both fire and grazing imposition prior to sufficient recovery of native vegetation.

The DEIS states that water quality can be affected by the location and distribution of roads. The current network of roads, the type and condition of roads, and their effects have not been laid out as part of a baseline. Roads punched into steep and rugged terrain also facilitate livestock movement, thus facilitating degradation of previously less-impacted steeper areas.

Both southern haul routes have 18 existing stream crossings, with 17 over intermittent streams and one over a perennial stream. The roads will be greatly enlarged providing many more areas for eroding flows. The project with its 80 miles of roads will greatly expand the road footprint and disturbance impacts, providing more exposed slopes and berms for erosion to be produced on, weeds, cattle movement and transport of weeds into surrounding uplands, degradation of sage-grouse brood rearing habitat, etc. Building very large flat road surfaces in lands with intricate boulder, rock patterns and drainage patterns will further alter and reduce water pathways.

There is not adequate information on livestock stocking, seasons of use, impacts from stocking and use levels applied, and much other essential information necessary to understand the degree and severity of livestock impacts – and water demands and losses from livestock and facilities. Map 3.4-2.1 does not even show or name Nevada allotments – let alone provide detailed analysis of direct, indirect and cumulative impacts of grazing disturbance, current ecological conditions, rangeland health assessments, or other information there.

There is no map of the existing livestock fence burden, water pipeline disturbance, and other combined livestock facility disturbance and the road network it has spawned.

There are already significant water quality problems, including 303d streams and reservoirs. Plus many of the smaller water bodies have little to no current information on livestock bacterial pollution, flow reduction, or other impacts.

Throughout the analysis in Section 4 for all environmental concerns except to some degree sage-grouse, it is impossible to understand the degree and severity of impacts because an adequate baseline has not been provided. The DEIS merely points to laundry lists of highly uncertain BMPs. See DEIS 4-75 for example discussion of Alternative B1. This states: “design features in Appendix 2B would apply which would minimize impacts on riparian and wetland vegetation, water quality, and hydrology during construction”, and also references Appendix 2A – which is just basics of what would occur with ANY project, or what is required under various laws. Just because BLM drew up a selective BMP list, provides no assurance whatsoever that impacts will be minimized - or the feasibility of the developer doing anything other than utterly disrupting and destroying fragile drainage networks and intricately connected mature and old growth vegetation communities that provide irreplaceable habitat for many rare and important species in an extraordinarily scenic wild land setting.

There is no certainty or guarantee of effectiveness of the grab bag of BMPs found in the Appendices or other modest and often minimal measures – some of which may or may not apply, or that BLM might waive at any time. The DEIS throughout Section 4 is in reality a programmatic analysis lacking in honest site-specific assessment of real world impacts. The DEIS creates an illusion of specificity by obsessing over a supposed total surface area of direct disturbance (# of acres) and minor differences between the various similar alternatives– with no site-specific information mooring the analysis in the ecological conditions at China Mountain and the context in which the project would occur. For example, the mapping of alternatives shows various strings of turbines proposed all along linear paths diverging from the main road. Much more detailed site-specific information on drainage patterns, current erosion, and all kinds of other information must be provided in order to understand the specific impacts of all turbine, cable, trenching, roading, or other disturbance. How will development of each area impact the specific

and often unique micro-site conditions that exist in that particular location? Will snowbanks that feed springs beneath the canyon rims be disrupted? If so, will spring flows be reduced? What other stressors are already affecting these springs, and what is their ecological condition? Will so much irreparable damage to soils, watershed processes, vegetation - be caused by a specific siting that a series of turbines, or the entire turbine string – that it should be dropped from the project? There is no way to determine this from the DEIS.

BLM must take a hard look, not a programmatic look based on a total tally of acres of disturbance.

This programmatic "we'll apply some BMPs and patch it up" approach may work in a farm field –but not a beautiful remote wild rugged landscape. All disturbed acres may be equal in a uniform farm field, but is not applicable in a highly diverse wild land setting.

The claims of minimizing disturbance are laughable – as the project maximizes disturbance so much that BLM is proposing to strip away many of the protections of the Jarbidge RMP, and gut others – as with the Wells RMP. The only thing that is minimized here is conservation and protection of wild lands, waters and wildlife. BLM cannot in good faith allow the use of the term "minimize" in a project where any protection that would be a hurdle to a wind development is being stripped away. This term can only be used in the context of a range of suitable alternatives where a project could be built in a site where RMP and other protections remain in place.

BLM cannot in good faith talk about amending the RMP to allow surface disturbance within 500 feet of riparian areas (DEIS at 4-76), and then turn around and claim a few meager promises of the developer in the Appendices would be minimizing anything.

DEIS at 4-75 admits:

Wetland and riparian areas would be removed … which would result in a long-term major change to the existing riparian composition and increase fragmentation.

Surface disturbance within RHCAs would lead to increased sedimentation ... which would have major, long-term, indirect impacts on water quality.

Permanent surface disturbance would occur within 300 feet of known snowfields. This would have a major, direct, long-term adverse impact on water quality

There would be 20 new stream crossings by new roads and 14 stream crossings by reconstructed roads …[Note: Many of these roads have not been Constructed – just driven two tracks - so the use of re-construction is not accurate]. How many intermittent drainages would be crossed?

Run-off from surface disturbance on steep slopes has the potential for both short and long-term indirect adverse impacts on water quality

51 miles of collection trenches would result in direct, adverse, long-term impacts on and indirect short and long-term adverse impacts on water quality …

There is a staggering lack of specific information about the current conditions where all of this disturbance would take place, and the degree of impacts to riparian areas and other elements of the environment in the haul route analysis as well.

The public is provided with a table of acreages (Table 4.1.4-1) that is meaningless in understanding the actual effects, or the quality of the acreage disturbed in terms of habitat, or the entire real world project disturbance Footprint and impacts to soils, waters, watersheds, cultural locales, recreational uses and enjoyment, and habitats for all species - except for some impacts discussion for sage-grouse. In the case of sage-grouse, BLM admits a 4-mile Footprint surrounding the project. Clearly, very significant land areas much greater in size than the jumble of direct bulldozing disturbance in Table 4.1.4-1 would be the

actual Footprint and impact zone of the project. From this often programmatic DEIS – there is no way to understand the extent of the impacts to riparian and all other resources. A tally of number of acres, or number of stream crossings says nothing about the conditions, the habitat quality, the threats facing aquatic biota, and other factors associated with each acre or stream crossing.

Since no real baseline is provided, and there is no site-specific analysis of impacts – merely a lumping together of tally of streams crossed or acres bulldozed, it is impossible to understand the direct, indirect and cumulative effects.

BLM is doing here what it did with parts of the Jarbidge Draft RMP – setting up a near-meaningless comparison, so it can make minor tweaks reducing a little bit the total number of streams disturbed or total acres bulldozed in the FEIS, and then claim "minimization", or that one very similar alternative is "better" due to a slight reduction in acres destroyed.

This is followed by the woeful lack of consideration of ecological conditions and impacts of chronic grazing, roading and other disturbances in the cumulative impacts section (see for example DEIS at 4-96 to 4-97), as well as the impacts of energy projects, transmission lines, mining development and exploration, and many other threats faced by native species and other public lands values. For example, the same population of migrating bird species may face wind farm death in other areas, as well. Or the population of redband trout or other aquatic species in a streams may be very low already, or facing increased threats from exotic fish that thrive in more disturbed conditions. Without specific data and analysis for each stream system and stream crossing, it is not possible to gauge the degree and severity of impacts. Will the same drainage crossed by new roading also suffer snowbank loss in the headwaters from the project?

This is not a farm field, and each area and each resource impacted will have a specific and often unique set of circumstances involved.

DEIS Map at 3-9 shows that there are many water resources that may be affected by this proposal. How many of these areas are in very poor or degraded condition? How will the Critical Groundwater Management Area be affected by water uses, or watershed or aquifer flow disruptions caused by this project? How much water will this project use? Who will be affected by aquifer or water resource depletion from the wind project? Are there other projects that will significantly alter flows planned? What about the water storage battery? Who holds water rights in and near the project area?

Cumulative Impacts

The cumulative impacts sections of the EIS are merely going through the motions of writing the word "cumulative" - and no real site specific analysis is provided. (4.1.4-5 - riparian), air (4.1.15), geology 4.1.2.5, soils, 4.1.3.5, water resources 4.1.4-5, noise (4.1.5.5), biological resources (vegetation cumulative impacts 4.2.15), no fish and wildlife cumulative impacts are presented. There are meaningless cumulative impacts statements like 4-296 claiming also that pronghorn cumulative impacts would be the same as mule deer. This is not the case – pronghorn have bigger problems with fences and fence density than mule deer –and the project would add an unknown number of supposed "temporary" fences in pronghorn habitats. Plus pronghorn require specific areas as winter range that are not necessarily the same areas as mule deer. See Jarbidge AMS.

How could BLM allow such shoddy analysis? The DEIS states: "cumulative impacts on pronghorn consist of the impacts described for each alternative combined with past, present, and reasonably foreseeable future actions. … the cumulative impacts would be the same as those described for mule deer". So what will this actually mean for the pronghorn (and all other species) habitat quality and

quantity, attainment of game agency population goals, maintenance of viable populations, ability of the species to move across the landscape and fulfill its seasonal needs, etc.? What will the cumulative impacts mean to sage-grouse and their seasonal habitats and population viability? When is it predicted the population would crash if this wind development is permitted to intrude?

These same problems plague the Cumulative impacts discussion for all parts of the analysis: historic and cultural resources 4.3.1.5, economics 4.3.3.5, visual resources 4.3.4.5, transportation and access 4.3.5.5, public health and safety 4.3.6.5, hazmat 4.3.7.5, special designations 4.3.8.5, lands with Wilderness characteristics 4.3.9.5, fire and fuels management 4.3.10.5, and recreation 4.4.1.5, and livestock grazing 4.4.2.5.

There is no overarching analysis of the actual foreseeable impacts on any component of the environment - for example on the viability of populations of rare and imperiled species impacted by the wind project disturbance in the short, mid and long-term. What will all of this actually mean to sage-grouse habitats and populations, antelope, perennial flows, etc.?

Noise Impacts Impossible to Understand

The general non-specific discussion of Noise in the affected Environment section, and the general programmatic information on noise in the Appendix, provide no basis for understanding the actual severe direct, indirect and cumulative effects of industrial wind development and road expansion on animals and recreational users across the Project noise Footprint.

There is not an adequate baseline provided, and the noise information is mere filler. The developer simply mentions “representative” ambient sound. DEIS at 3-32. The EIS states “the estimated levels would vary with conditions and the proximity of stationary and transient noise sources”. Indeed. Where will these noise sources be, and what will be the effects over a wide range of conditions –from winter snow to dusk during lek season? Careful and detailed site-specific baseline information and project development analysis must be provided.

How will noise vary depending on location of turbines, seasonal conditions, wind speeds, etc.? What will be the combined effect of all the noise generated by this industrial activity? How ill this impact sage-grouse winter habitats, leks, nesting habitats? Elk wintering areas? Hikers and wild lands enthusiasts?

There is not adequate analysis of the sensitivity of wildlife to sounds – including potential differences between species, how project sounds will interfere with animal behavior and animal use of habitat, etc. See 3.1.5.3.

Cantrell (1974) concluded that the results of human and animal experiments show that average or intrusive noise can act as a stress-provoking stimulus. Prolonged stress is known to be a contributor to a number of health disorders. Kryter and Poza (1980) state, “It is more likely that noise-related general ill-health effects are due to the psychological annoyance from the noise interfering with normal everyday behavior, than it is from the noise eliciting, because of its intensity, reflexive response in the autonomic or other physiological systems of the body.” Psychological stresses may cause a physiological stress reaction that could result in impaired health.

The DEIS fails to provide information on the atmospheric temperature and wind profiles that may affect the way Project noise is transmitted through the atmosphere, and the severity of its impacts. Will strong temperature gradients and inversion layers contribute to the scattering of noise (blasting, turbine, road, linked hydroproject, other noise)? Will variations in wind speed and pattern alter the shape of the Project noise Footprint? Does the location of each turbine, and the direction blades are facing, shape the noise

footprint? What noise factors will change seasonally? What impact will topographic features, snow, or other factors have on noise impacts?

Will facility sounds affect bats roosting in rocks, or interfere with other behaviors?

Low-altitude overflights and sonic booms induce stress in native animals. Will industrial wind farm turbine noise, construction blasting, sudden changes in noise levels with wind shifts or changes in turbine operation, gravel pit operation, snowplowing, etc. produce noise that causes harm or and stress to wildlife? Increased heart rates are an indicator of excitement or stress. This has been found in pronghorn antelope, elk, and bighorn sheep. The consequences of this disturbance are cumulative and may not cause obvious and serious health effects, but coupled with a harsh winter, it may have an adverse impact. Research has shown that stress induced by other types of disturbances produces long-term decreases in metabolism and hormone balances in wild ungulates. Animals newly or infrequently exposed to noise like blasting may exhibit the "startle effect." Plus wind turbine noise will also be associated with visual shadow flicker that may promote fright, and additional stress.

The DEIS again downplays the potential impacts to wildlife resources including migratory birds, sage-grouse, bats, mule deer, antelope, elk and other species found in the region.
What role does terrain or vegetative cover play in impacts of noise? What are the potential effects of noise and other behavioral stressors on predator-prey interactions, reproductive success, and intra or inter specific behavior patterns? The abilities to hear sounds and noise and to communicate assist wildlife in maintaining group cohesiveness and survivorship. Will Project noise impact social species communication, including the transmission calls of warning, introduction, and other communication types? Is there a potential that noise could disrupt a species' ability to communicate or could interfere with behavioral patterns? Will noise cause stress; behavioral modifications; interference with mating or reproduction; and impaired ability to obtain adequate food, cover, or water? How will this combine with the habitat fragmentation and loss impacts from all parts of the project development and operation? Could there be tertiary effects including population decline and habitat loss due to avoidance of noisy areas? Will Project noise cause changes in home ranges, foraging patterns, and breeding behavior?

How will songbirds be impacted by construction and operation noise? Is there a negative impact to reproductive success? Will raptors abandon nests? What are raptor responses during nesting? Will project noise cause noticeable alarm responses and limit productivity? Will it interfere with animal movement and dispersal, and serve to limit habitat connectivity between populations?
Will blasting, or turbine noise as well as flicker effect cause some birds to engage in escape or avoidance behaviors, such as flushing from perches or nests? Will these activities impose an energy cost on the birds that, over the long term, may affect survival or growth? Will the birds spend less time engaged in necessary activities like feeding, preening, or caring for their young because they spend time in noise-avoidance activity?

What is the current civilian and military aircraft overflight noise? Are there airspace expansions proposed? How will that increase noise stress? We note that this sage-grouse population, wintering big game and other wildlife inhabit the only area of the Jarbidge BLM where sage-grouse, big game - and recreational visitors are not exposed to loud and often incessant ear-splitting low level aircraft noise – with sporadic sonic booms, as well.

This is now a uniquely quiet place with scenic natural beauty that will be destroyed – both aurally and visually by the blight of industrial wind development.

Vegetation

This section, like all the rest, fails to describe the diversity and scenic beauty of the native vegetation communities across the Project Area and their high quality in many areas– dazzling early summer wildflower displays, golden aspen amid pale green sagebrush and dark green mountain mahogany in fall --- all resulting in a beautiful place. The importance of the many old growth and mature vegetation communities, the health of aspen clones, and many other important considerations are not addressed. It is impossible to tell from the info provided in the EIS where and how these vegetation communities will be altered or destroyed.

Upland vegetation is based on 2010 BLM mapping and other info. BLM mapping only takes into account patches 20 acres in size or more – so it is not fine-scale enough to understand the complexity of the diverse vegetation communities in this spectacular wild land setting. The developer has not provided siting details with sufficient detailed mapping for the public to understand and provide comment on the unique mature and old growth plant communities that may be impacted. Plus the EIS claims that locations of turbines, new roads, etc. are not clearly locatable –and in fact are still "flexible" to some degree.

Here as in all sections of the EIS, the "Methods and Assumptions" are that "impacts on vegetation are assessed by determining the number of acres of total, sort term, long-term, and permanent disturbance to occupied and potential sensitive species habitat. DEIS at 4-112. It is not clear if this is supposed to refer only to SSP or to all veg communities and types. The EIS then discusses intensity of impact - minor, moderate major, based on assumptions.

There is no consideration of the quality and ecological integrity of the plant communities that are present – such as near-pristine old growth mountain mahogany groves/copses, or bonsai low sagebrush communities amid bands of platy talus striping. There is no effort made to identify unique or regionally significant plant assemblages.

Assumptions include that some areas would be revegetated. The extreme difficulty of re-establishing native vegetation in the harsh disturbed environment, and the quality of the vegetation that would be re-established, are not examined. Neither is the amount of herbicide that be used – not only in the immediate disturbance zone – but also where weeds spread to ad a result of this large-scale disturbance.

Some of the assumptions are ridiculous – and appear to be filler to provide the illusion of analysis. Example "changes to the seral stage of vegetation groups would be influenced by the seeding methods used" What does this even mean?

Much more goes into understanding the risk of weed invasions –and a site's susceptibility to becoming a cheatgrass monoculture for example - than " increasing surface disturbance increases the potential for establishment and spread of noxious weeds and invasive species". Well, since the project would be based on large-scale continued livestock grazing disturbance the potential for weed invasions is very high.

The impacts of the No Action alternative are not adequately examined. See for example DEIS at 4-114 - uplands, noxious weeds, special status plants. This applies to all parts of the DEIS No Action analysis too. DEIS at 4-115 states: Construction would be a major long-term impact on vegetation.
Soils will be impacted – but topsoil will be stockpiled. This completely fails to consider that in many areas there is little to no topsoil – and that plants like low sagebrush growing amid talus have little to no topsoil –but instead grow on small amounts of soil between platy rocks –and that the rocks may be essential in holding water on-site, and moderating growing conditions in a harsh environment. So without the rocks, and once the soil that is present is disturbed, the plants might not be able to survive.

The EIS at 4-115 states that re-establishing mid to late seral vegetation could take 30 years or more. This woefully fails to consider that nearly all the mountain big sagebrush, low sagebrush, mountain mahogany

and other communities that would be disturbed are much older than 30 years – and 30 years in many instances may provide only limited recovery of community composition, structure and functioning. Many centuries are likely to be required to establish anything remotely resembling the plant communities that are currently present on the site. Whole aspen clones, too, may be wiped out permanently by this disturbance.

Much of the vegetation is complexly interspersed – due to natural differences in topography, soils, snow deposition, disturbance history, etc.

The DEIS fails to examine the serious risk of cheatgrass invasion across nearly all disturbed upland communities. It falsely claims (DEIS at 4-117) that "because most of the project areas is within the mountain big sagebrush, low sagebrush and black sagebrush zone, there would be less risk of conversion to an annual community type form, disturbance than if it were in a low elevation Wyoming big sagebrush zone". There is a high risk that extensive cheatgrass invasion will occur – and weeds will spread into adjacent areas.

WWP 2011 field observations found high susceptibility to cheatgrass –especially in areas disturbed by fire, road blading, or intensive concentration of livestock in the very same plant communities where the EIS finds little cause for concern:

- Cheatgrass is thriving in disturbed soils associated with MET tower placement on state land at the CM Project site in low sagebrush. Cheatgrass is now present at the Nevada MET site in zones of RES disturbance, and some other MET towers as well. This illustrates the false and misleading info used in the DEIS analysis which claims that low sagebrush, black sagebrush, and mountain big sagebrush are not very susceptible to cheatgrass invasions. That definitely is NOT the case. Cheatgrass is invading fire-disturbed as well as unburned road blading and MET tower disturbed vegetation communities at high elevations right within the Project Area.
- Cheatgrass on a bulldozed road margin high on the slopes of the China Mountain topographic feature itself – in a location where BLM land status maps don't even show any roading existing. Who bladed the road, and when? Of course, the DEIS does not provide an adequate portrayal of existing roads, their condition, impacts, and other essential aspects.
- Cheatgrass thriving in the cattle-disturbed understories of mountain mahogany.
- Cheatgrass thriving in former snowbank areas where gazing ad trampling of livestock run across snowbanks over the years ahs killed off woody vegetation that could trap and hold snow.

Again here, a Supplemental DEIS is required so that valid analysis for examining the severity of adverse and/or irreversible impacts of this industrial wind development is being used, and that the great difficulties - or impossibility - of rehab/reclamation must be examined based on current best available science. BLM cannot rely on wishful thinking.

This also illustrates the shallow and near-programmatic level of the analysis of the EIS where crucial current site-specific data and analysis are sorely lacking. This further adds to the need for a SEIS. Cheatgrass is a great threat. Preserving the native vegetation communities here is critically important. If the massive disturbance of a wind farm occurs, and especially with livestock grazing disturbance continuing, cheatgrass will sweep across this landscape. The significance of this can only be understood in the context of how rare landscapes and mature and old growth vegetation of the high caliber of the Project Area now are in the region.

Fires have also made sites more vulnerable to cheatgrass - elevating the great importance of all remaining undisturbed native vegetation. Yet BLM has not even been honest about where sagebrush is and is not still present –bending the facts to favor the developer. For example in the vicinity of the last two southern

MET towers where Idaho BLM misled the public about its placement of two towers amid critical remaining sagebrush. Cheatgrass has proliferated in some of the fire areas. Additional disturbance, site warming or drying effects of industrial wind will only exacerbate cheatgrass and other weeds.

The source that is relied on for nearly all the wildlife analysis (except sage-grouse) is the Bio Report - Young et al. 2009. Yet that report has almost no information on vegetation, and doesn't even map or consider recently burned areas and their effects – including in relation to the 2007 and other fires.

Detailed mapping and analysis must be provided that overlays actual vegetation at a much finer scale – in relation to all project components and specific siting, must be provided in a SEIS. The DEIS describes overall veg communities, but there is no info on their current ecological condition, level of degradation, or risk of weed invasion. This must include ecological condition and degree of degradation of private land, too.

Areas that have burned in and near the Project Footprint are at increased risk for weed invasion, and the public has spent large sums in efforts to rehab sagebrush and other habitats after the fire losses. Now this wind development places these areas at greater risk, and loss of taxpayer investment in restoration efforts.

DEIS at 3.2.1.2. discusses noxious weeds and invasive plants. While describing adverse impacts of roads in expanding invasive species, it does not address the adverse direct, indirect and cumulative impact of livestock grazing PLUS roads and facility disturbance in promoting weeds.

The weed list is greatly incomplete. There is white top surrounding the project area. Why is it not included this aggressive invasive species in the list? Why is there no detailed mapping and analysis of the current composition of cheatgrass – and risk of cheatgrass invasion and/or increase – associated with this project. This includes the micro-site desiccation effect of wind turbines resulting in a hotter, drier site.

A new very invasive thistle species is rapidly expanding across the NV-ID area, and some is present in the project site –in areas of livestock and/or road disturbance.

The EIS states: "invasive plants can spread rapidly on disturbed sites, and can also invade communities in high ecological condition". Once weeds proliferate in project-disturbed or desiccated sites, neighboring areas will be threatened as well. The large-scale project disturbance, especially in windier areas where windblown seeds will be able to be move over large distances in air currents, will ensure that the project will have a very large and significant weed Footprint. Species like rush skeletonweed, and thistles, have seeds readily transported long distances on winds.

Further, BLM is proposing massive fuelbreaks all over hundreds of miles of roads to the north – and plans to use the invasive weedy forage kochia. Kochia will be picked up in vehicle tracks or mud on livestock hoofs –and expand throughout large areas. Forage kochia is increasingly recognized to be "weedy". Plus BLM is also proposing to plant more large coarse exotic wheatgrasses – which will only serve to promote more fires and cheatgrass in interspaces– thus expanding the weed problem further. See WWP Long Butte Fire Appeal (Attached).

Until much more specific info is provided, and detailed surveys for all special status plants take place across the Project Footprint, it will be impossible to understand the full effects. Until detailed analysis of the composition and high quality - including many areas with importance as representative examples of vegetation community types are recognized and delineated, there can be no valid analysis of the project impacts.

While it is nice that BLM modeled habitats, where are the intensive detailed site-specific surveys with actual systematic field surveys and data? DEIS at 3-50.

Table 4.2.1-16 reduces analysis to acres disturbed – with no consideration of the quality of the habitat, or the number of individuals or the status of the population occupying the site. This is not a valid comparison, and appears to be a desperate effort to try to find something positive to spin about the project.

Fish and Wildlife

In the Fish and Wildlife Affected Environment discussion in the DEIS (starting at 3-51), BLM glosses over many important rare and imperiled species and fails to provide critical baseline information on species presence, abundance in and near the project area, occupied habitat and habitat conditions. The developer cannot rely on BLM's general surveys for small mammals, reptiles and amphibians. The 2007 BLM information was a general effort in looking at just some areas. It was not specific to this huge project area, to the area's complex landscape and vegetation communities, or to the diversity of higher quality habitats that the project area encompasses. Detailed site-specific surveys must be conducted in and around the project area for a minimum of 2-3 years to establish a firm baseline for ALL important, rare and sensitive species.

The fish discussion is greatly inadequate – the species of dace are not even clarified. Are leatherside chubs present? What rare mussels are present? WWP has verified California floater presence in Clover Creek.

The EIS data collection is deeply flawed. See Critique of WEST Young et al. 2009. It has failed to conduct essential spring-time night radar studies for migratory birds and adequate bat studies. Without this essential information, the mortality cannot be understood.

Radar surveys for wind energy projects offer significant benefits over conventional visual avian survey techniques. Radar studies must be conducted for assessment at this wind energy project. Vertical and horizontal scanning radars (such as Merlin) provide data on bird & bat passage rates and altitudes. This radar provides detailed bird and bat target databases for the rotor swept altitudes that can be used to provide quantitative determination of mortality risk to birds and bats. The system may develop detailed data on bird and bat movements for the area surrounding the wind farm out to 3-4 nm and up to 10,000 feet in altitude. Programs may includes standard and custom database queries providing both tabular and graphical outputs quantifying the numbers of birds and bats passing through the rotor swept area allowing calculation and determination of bird and bat mortality risk. (Info from Merlin Radar Web Info).

Radar must be used to collect thorough baseline info provided in a SEIS. The studies must effectively discriminate birds, bats and insects and provide important information on bat migration relative to insect rich layers in the atmosphere. It is possible that bat mortality with respect to wind turbines is highest where these insect layers intersect with the rotor swept zone of the turbine and this technology could be definitive in defining this relationship. (Merlin Radar Web Info).

All of this critical data, including data on insect rich layers, seasonal abundance, highest density locations, and other information on native species is necessary to understand how the project may impact native biota, and it has not been adequately collected and analyzed.

The lack of spring radar info across this area that is alive with spring migrants, and the lack of any clear info or analysis in the EIS, is a serious flaw.

WWP's recent field visits have observed extensive avian activity - including species like violet green swallows and common nighthawks eating insects in the areas right where Met towers are placed on BLM and state lands where lethal turbine blades would be spinning. The birds are there because the site is rich in insects.

Grasshoppers abound on these higher elevation low sagebrush ridges that characterize the MET tower sites. Large numbers of kestrels concentrate on such areas in late summer, consuming these insects. Plus, there are a diversity of butterflies and moths - likely associated with the complex and diverse plant communities, lavish wildflower displays, and many of these insects appear attracted to prominent high points. These insects provide a food source for many avian species, including migrants.

Full and detailed surveys of the insect abundance and presence in sites slated for development must be conducted. Studies of butterflies and moths must also be conducted. Will night lights draw in moths and other insects – and thus increase potential bat and other mortalities?

Migratory Birds

We have discussed concerns DEIS shortcomings related to migratory birds throughout comments on the DEIS Appendices and other analysis. DEIS at 3-54. The DEIS states the annual mean raptor use ranks in the middle among 36 other wind energy facilities. What are these facilities, where are they located, how many of the facilities had this many eagle nests in proximity? How many of those projects had poor quality advance work (like here) and poor quality fatality monitoring by industry consultants? RES here never even bothered to survey for owls – which are also raptorial species. How poor were the studies at the other projects – both before and after construction? What is the use during peak migration or other periods when raptors may be most vulnerable? How can there be annual mean use – with so little data? What habitats were the other facilities in? How complex were these habitats?

There is no evidence provided that the RES raptor studies were sufficient. The EIS repeatedly cites Young et al. 2009 – yet does not provide this source on-line, or as an appendix to the EIS. This must be corrected in a SEIS. Full and detailed information on methods, intensity and appropriateness of surveys, and siting are not provided so it is impossible for the public to adequately understand or critique these DEIS claims.

Raptor nesting surveys must be conducted over a minimum of 10 miles surrounding the Project footprint, and over larger areas as well to establish the regional raptor population for all species.

Brewer's sparrow, vesper sparrow and horned lark were the most abundant species found –the first two of these are BLM sensitive species.

Please consider ALL sensitive species "to be an issue brought up by the public" – not just sage-grouse and redband trout (DEIS at 3-58 to 3-59). The baseline of information and analysis for rare species in the EIS is woefully deficient. A SEIS is required.

Highly subjective and qualitative methods have been used so far– so the full scale of mortality cannot be understood. See Merritt et al. 2008, paper on quantitative radar-based data with migrating bird presence verified through use of night vision technology. Some fall radar data may have been collected, but necessary efforts to distinguish whether animals detected were birds, bats, or insects did not occur. This is a grave shortcoming, and must be corrected with two years of baseline surveys – with data collected using best available scientific techniques.

Wind project impacts go far beyond mortality caused by the turbine blades alone, and include impacts from the power lines that bring wind-generated electricity to the grid and habitat loss from the footprint of

the wind farms and associated roads and structures. Power lines are a particular threat … other large birds are at risk from collisions with the lines.

Table 4.2.2-23 represents yet another effort to created a smokescreen of numbers that create an illusion of analysis without really having any meaning unless the full environmental setting is understood.

For example, one cannot understand the significance of the acreage of shrublands removed unless one has detailed information on the size and continuity of the patch, the quality of the habitat, whether it is on a 60 degree slope or on flat terrain, whether it is sagebrush or mountain shrubs, and much other essential information. Site-specific detailed information must be provided.

Avian species that rely on sagebrush communities are much more fine-tuned in their habitat requirements than just nesting or foraging in "shrubs". Different heights, densities, canopy cover of shrubs are used by different species. So to understand the real effects on species like Brewer's sparrow or sage sparrow, detailed analysis of the quality of the habitat, patch size,

Analysis of the multiple disturbances from the Project is needed. Will sage sparrows nesting by the powerline suffer from both powerline and access road noise, vehicle mortality, increased nest predation, etc.? Sage sparrows are known to require larger patches of sagebrush – so if an area is fragmented by a project development – the entire patch may not be used. (Research by Knick and others in Birds of Prey Area showed this). Site-specific inventories that identify current baseline bird species presence must be provided across all areas in the Project Footprint. RES consultants cannot just extrapolate from limited point or other surveys, or predict outcomes based merely on acres bladed. Much more detailed information on the site-specific impacts and habitat impacts of all parts of this project must be provided in a SEIS, and detailed information must be provided for all sensitive species and populations of concern. Please also see our concerns about WEST Young et al. 2009 Bio Report.

Degree and Severity of Existing Habitat Degradation and Fragmentation. BLM must systematically assess and describe the sagebrush habitat degradation and fragmentation that exists across southern Idaho/adjacent Nevada habitats. This includes an assessment of past BLM vegetation treatments and a linked study of their current condition/weediness, livestock infrastructure (fences, pipelines, spring projects, water haul, salt sites) road densities, etc. This also includes acreage of treatments, fires, lack of success of post-fire sagebrush and other seeding, etc.

As an outcome of this process, a map of degradation and fragmentation (facilities, treatments, fires, ag. or developed land, roading, etc.) across the landscape must be produced. This should serve as the basis for placing in context the wildlife habitats and populations affected by the project, and assessing present impacts of threats, fragmentation and causal factors.

Studies conducted on sagebrush-dependent songbirds show that as habitats diminish, populations may disappear before all available habitat is lost. This means that habitat loss and population decline is not linear, but appears to cross a certain threshold, or series of thresholds, after which birds just do not inhabit or use lands for nesting. Past fires, vegetation treatments, etc. must be evaluated as well for their effects on populations. Then the severe impacts of the China Mountain Wind Project must be overlaid, and valid assessment and risk analysis conducted.

What is the current population now? How severe might declines be due to the project? Without the project under current management paradigms? How will the likely and foreseeable decline of sage grouse in the area further serve to isolate other populations? How does this apply to all other special status species here?

With all the transformers, explosions, electrical lines, and constant human disturbance increase fire danger? How will these fires further alter and destroy wildlife habitats? Will the wind company be responsible for all suppression costs and full rehab with all native species? The developer must pay the full cost of planting, and re-planting, until weed-free native vegetation becomes established.

What is the "estimated wind speed"? How does this change seasonally? What are problems – such as winter weather complications, violent storms – associated with fair, good, excellent, outstanding wind opportunities? We note that there is not a large numerical difference between "fair" and "good" wind sites. Who derived this scale -- the wind industry? How much further will the sound of turbines on a ridge top be carried in the downwind direction than on flat land?

Where are any migration corridors for migratory birds in the region? How do winds over the area compare to winds over other north-south or other features in this region? How will loss of birds and populations (or perhaps even avoidance of the area due to noise, visual disturbance, etc.) affect or shift birds to other marginal areas? Please note: the diversity of habitats and rocky exposures as well as the springs and the vegetative resources associated with the high plateau may be critical to migrants, and loss of habitats and resources here will not be readily replaceable. For example, this may be especially so for water for fall migrants, or relatively open snow-free areas for spring migrants. The dissected tableland is a relatively low elevation north-south range area, and so may be snow-free sooner, and vegetation phenologically more advanced, so greater insect production and food for migrants is likely to occur – making it critical for rest and refueling.

Where is complete data on bird migration, including radar at night for all migration periods over multiple years? We can't find it in the EIS, and it is essential to understand the current setting, and predict or assess future impacts.

Why are MET towers needed after the turbines are placed? Why can't any wind measurement devices be placed on turbines or site buildings? Does continued use or placement of MET towers mean that this is only Phase One of a project that may expand, and thus destroy even more habitats?

Greater Sage-Grouse

There have been precipitous declines in sage-grouse habitats and sage-grouse populations, including in areas not suffering large-scale fires in the Jarbdige, but that continue to suffer chronic livestock disturbance. See Dynamac EA 2004, Jarbidge AMS 2007. Yet BLM refuses to act to protect sage-grouse. Instead, BLM in the DEIS appears overjoyed that "the sage grouse does not receive statutory protection under the ESA". It outrageously proposes stripping RMP protections so that the wind developer can destroy critical remaining habitat across the Footprint of the Project area. This attitude flies in the face of the many promises made by Interior at all levels regarding sage-grouse protection – BLM's Conservation Plan, a long series of Instruction Memos, statements by Bob Abbey, Ken Salazar, and a raft of western politicians.

There are alarming sage-grouse habitat and population trends. According to the DEIS Section 3A at Page 3-60 to 3-61:
Sage-grouse in the project area are within the Northern Great Basin population within the Snake River Plain Sage-grouse Management Zone (Management Zone IV), as defined in Connelly et al. (2004) and Stiver et al. (2006). This population occupies portions of Nevada, southeastern Oregon, southwestern Idaho, and northwestern Utah. Garton et al. (in press) reported that population trends for the Northern Great Basin population, as indicated by average number of males per lek, declined by 37 percent from 1965-1969 to 2000-2007. Average number of males per active lek followed the same pattern over the assessment period and declined by 17 percent, and the proportion of total active leks surveyed decreased.

Garton et al. (in press) also reported similar trends for Management Zone IV as a whole; population trends decreased over the assessment period by 54 percent and average number of males per active lek decreased by 39 percent.
Lek route data suggest sage-grouse populations in the Idaho Magic Valley Region, which includes the project area, declined from 2007 to 2008 after increasing from 1995 to 2006. The number of males counted on leks in 2009 was 49 percent lower than in 2006 (Idaho Department of Fish and Game [IDFG], 2010a). Further, lek route data specific to the Jarbidge Field Office collected in 2010 indicated that lek attendance was 58 percent below the 2006 level and lek data specific to Browns Bench was 59 percent below the 2006 level (IDFG, 2010b). Decreases in the sage-grouse numbers have also been recorded in Nevada (Sage-grouse Conservation Team, 2004).
Two large population strongholds for the sage-grouse are evident in the range of this species. The project area and haul routes occur within the western stronghold. This area occurs in the extensive, contiguous area encompassing southeast Oregon, northwest Nevada, southwest Idaho, northeast Nevada, and east-central Nevada and includes most areas in the northern Great Basin, southern Great Basin, and Snake River Plain (Widsom et al., in press). Data suggest that the Jarbidge foothills and Browns Bench (which include the project area) appear to provide important connectivity with sage-grouse populations in Shoshone Basin to the east, northern Nevada to the south, and Owyhee Plateau to the west (BLM, 2007b; Connelly, 2009), making sage-grouse habitat in this area vulnerable to fragmentation.
With lek data provided by the respective states within the range of sage-grouse, Doherty, Tack, Evans, and Naugle (2010) mapped breeding densities of sage-grouse as a tool for range-wide conservation planning. Maximum count data from leks between 2000 and 2009 were used to delineate high abundance population centers at the range-wide, sage-grouse management zone and state-level scales. Approximately 23 percent of the known male sage-grouse population range-wide occurs within Management Zone IV (Connelly et al., 2004; Stiver et al., 2006). This Management Zone includes the majority of sage-grouse habitat in Idaho, as well as portions of northern Nevada, southeastern Oregon and northwestern Utah. ***A comparison of the analysis of Management Zone IV breeding densities by Doherty et al. (2010) with the project map suggests that the southern portion of the project area, the southern haul route options, and all of Browns Bench occur within an area containing the top 25 percent (i.e., "best of the best" leks) of the breeding population within Management Zone IV (Figure 3.2.2-1).*** *This area represents 13 percent of the project area, 20 percent of the 4-mile analysis area, and 26 percent of the mid-scale analysis area, and underscores the relative importance of China Mountain and the surrounding area to sage-grouse. Doherty et al. (2010) states that despite high bird abundance in management zones, maintenance of the current distribution of sage-grouse would depend on effective conservation. Maintenance of desired conditions in areas identified as strongholds for sage-grouse appears critical to the species' future persistence* ... (DEIS at 3-60 to 3-61).

Recent Nevada studies including of late brood rearing and winter habitat were not yet available at the time of the DEIS, but we understand that they show even greater importance of the area.

DEIS Page 3-84 states: ***Within the 11-mile analysis area, over 70 active leks, 10 unoccupied leks, and over 35 undetermined/unverified leks have been recorded (Connelly et al., 2009).*** *It should be noted that despite the large number of leks in the project area vicinity, lek counts since 2004 indicate that the overall sage-grouse breeding populations in the 11-mile analysis area have been declining (Connelly et al., 2009). Lek counts since 2006 specific to the Jarbidge Field Office and Browns Bench also show this declining trend as described in Population Trends above.*

Before the Murphy blaze, the plummeting sage-grouse population (too much livestock disturbance and facilities, too many seedings), and the great importance of the relatively less disturbed Browns Bench-China Mountain area for sage-grouse, was already known. The developer knew full well what the severe conflicts would be in this area from the start. RES was forewarned, so it cannot now claim “we have invested all this time and money”. The BLM RAC wrote a letter asking that the first MET towers not be

erected, due to the already very well known significance, sensitivity and vulnerability of ecological resources here. Please be sure to include that RAC letter in a SEIS.

The Dynamac Grazing EA admitted that Jarbidge grouse populations had declined greatly:
2004 Dynamac EA, Page 3-57 stated "Based on available info, there has been an 85% reduction in the number of sage-grouse male attendance at known leks". That EA also admits decline in leks with winter grazing started in some areas – including Antelope Springs, portions of which lie within the Project area.

The DEIS admits that sage-grouse may move 12 miles to nest, and that the majority of the project area is key habitat. It states: "the project area and Browns Bench to the east provides the highest quality remaining winter and breeding habitat in the Jarbidge area for sage-grouse (Connelly, 2009)". DEIS 3-62. The project is located in one of the largest blocks of relatively intact sagebrush habitat remaining in the FFO and northern Nevada" DEIS at 3-64.

Significant identified Restoration (R1) habitat is included within the Project Area, and that habitat is supposed to be being restored for sage-grouse. Taxpayers have spent many millions of dollars supposedly restoring vegetation on such burned lands. There is an exceedingly long recovery time for sagebrush once it is disturbed. So the remaining high quality habitat centered in and by the Project Area is critical for population persistence for many decades into the future. During this time - other fires will likely remove important habitat – so any decision to purposefully destroy the best of the best that remains by siting a wind farm there is ecological madness.

A full risk assessment must be conducted to determine the likelihood of population persistence with and without the wind farm disturbance.

The risk of fire is increased from the increased roading and other disturbance, and upgraded road network providing much easier access for OHV and other users that the wind developer has encouraged.

3-67. A lek site within the project area has not been adequately surveyed. BLM allowed MET towers to be placed prior to intensive lek surveys – including right by a potential lek site near the Nevada line.

3-68. More extensive and intensive data collection should occur in winter to carefully delineate winter habitat use. How is year-round livestock grazing disturbance altering sage-grouse use of habitats?

How much winter habitat actually remains - including for use under the harshest weather conditions? Does winter habitat change under varying snow depth and other conditions? Mapping shows sage-grouse winter use up on the plateau – making the windswept areas - where MET towers are sited and/or their visual disturbance would be very high– even more critical for sage-grouse persistence. Visual disturbance impacts of the project would be immense - tall vertical objects, shadow flicker and movement, night lighting including carpet bombing effect of lights on winter snow.

Sage-grouse use particular windswept low sagebrush areas in winter – and the disruption of windblown snow from roading - large flat surfaces, borrow pits, rocky outcroppings blasted away), clearing of vegetation, and the desiccating action of the turbines and local shifts in wind and thus snow deposition patterns – may drastically affect critical winter areas.

The grouse data that is mapped is primarily based on birds captured in Idaho – even greater use of the Project area will be shown once Nevada radio-collared bird info is provided with mapping and full analysis. Comprehensive multi-year-Nevada-focused data must be incorporated in a SEIS. DEIS 3-81 describes significant sage-grouse use of the proposed wind site and southern access routes, the transmission line, and development areas (laydown and other sites). And again, we believe a valid

baseline can only be achieved if MET towers are removed. See WWP comments and Appeal of 2008 MET tower EA, describing conditions on ID-NV border where birds clearly move across state lines, and towers have been positioned in remaining sagebrush to interfere with this movement. We incorporate these by reference into the Wind Project Record.

Why is the EIS written to minimize the importance of winter habitat –as in DEIS at 3-68 "use of term "only" in relation to habitat critical to grouse survival?

What is the relative number of birds that use the lands between Salmon Falls Reservoir and Highway 93 – compared to the number that use lands west of the Reservoir? This is essential to understand the feasibility of siting a wind farm in lands by Highway 93, which must be considered as an alternative, too.

Why aren't the Connelly et al. 2009 IDFG report, and all relevant reports cited here provided on-line, or as an Appendix for the public to fully review?

DEIS at 3-81 concludes that sage-grouse use the majority of the project area. DEIS at 3-84 states:

Within the 11-mile analysis area, over 70 active leks, 10 unoccupied leks, and over 35 undetermined/unverified leks have been recorded (Connelly et al., 2009). It should be noted that despite the large number of leks in the project area vicinity, lek counts since 2004 indicate that the overall sage-grouse breeding populations in the 11-mile analysis area have been declining (Connelly et al., 2009). Lek counts since 2006 specific to the Jarbidge Field Office and Browns Bench also show this declining trend as described in Population Trends above.

Haul Routes, and increased long-term human disturbance associated with their upgrades will also have significant adverse impacts:

There are seven occupied leks within 4 miles of option 1 of the southern inbound haul route; the closest lek is 0.5 miles away (Figure 3.2.2-18). These leks are also within 4 miles of the project area. There are nine occupied leks within 4 miles of option 2 of the southern inbound haul route; the closest lek is about 97 feet away (Figure 3.2.2-18). Eight of these leks are within 4 miles of the project area and seven are within 4 miles of option 1 of the southern haul route. There are 33 occupied leks within 4 miles of the northern inbound haul route, with the closest only about 11 feet away (Figure 3.2.2-19). There are 21 occupied leks within 4 miles of the outbound haul route, with the closest 0.3 mile away (Figure 3.2.2-19). Twelve of the same leks within 4 miles of the northern inbound and outbound haul routes are also within 4 miles of the project area. DEIS at 3-84.

The analysis of impacts to sage-grouse in Chapter 4 includes similarly disturbing information about the great significance of this landscape to sage-grouse.

In this section, and its evaluation of alternatives, BLM makes assumptions and statements that are cause for concern. BLM cannot rely just on the "indicators" at 4-184. Sage-grouse require habitat connectivity. They require undisturbed areas throughout the year – so drawing a 4 mile circle only around leks does not address the impacts of noise, vehicles, visual intrusion to winter habitats across the Footprint of the Project. It does not address the loss and further declines in springs, seeps, intermittent drainages that provide brood rearing habitat from disturbance to snowbanks, large bladed road and turbine areas, altered and disrupted flows, dynamiting, etc. It does not address building even more fencing hazards and intrusions in a landscape already greatly chopped up by hazardous fencing. It does not address the cumulative visual intrusion of powerlines, turbines, MET towers, O& M facilities, gravel piles, etc. It does not address the increase in mesopredators from the battery of disturbances and "subsidies" across the

project Footprint. Since grouse move through this essential area from Shoshone Basin and O'Neil Basin, this represents highly significant regional habitat loss and severing of habitat connectivity.

Much more site-specific detail must be provided on all aspects of this project, including specific siting of development components in relation to habitats that the birds use and require.

Stipulations provide no assurance of protections. They can be waived by BLM at any time, or altered. Operators of equipment, or others, can make mistakes and disrupt habitats, or ignore constraints altogether if expedient.

It will be impossible to avoid all the areas in the Wells FO as described at DEIS 4-185. We stress too that these distances are woefully outdated – and five mile or greater avoidance of leks throughout all the breeding period, 3 mile avoidance of winter habitats, and many other constraints based on current science must be mandatory. See USFWS Federal Register Warranted But Precluded Finding, Chapters by Holloran, Naugle and others in the Sage-grouse Monograph 2009 Studies in avian Biology (Knick and Connelly 2009).

BLM even leaves the Wells RMP standards open to being gutted to favor the developer, stating "exceptions could be granted based on pre-construction surveys and site-specific conditions". DEIS at 4-185. It is claimed this all "would reduce" impacts – but this is in no way shape or form "minimizing" impacts –due to the severe conflict with current science that supports a five mile buffer. So essentially BLM will strip even these Wells protections – without the formality of an RMP amendment. BLM is granting "waivers" before there has even been a ROD.

We are also greatly concerned that there would be different – and lesser – protections applied in Nevada than in Idaho. These birds form a population - and the artificial state line cannot be used to lower protections to benefit the developer. DEIS at 4-185.

BLM provides much shorter estimates of recovery time for sagebrush communities (DEIS at 4-185). BLM tries to claim habitat lost would be in "small patches" – but chopping habitat apart is fragmentation – and the Footprint of the disturbance extends large distances beyond the bulldozed zone – from traffic noise, visual intrusions, weeds, roads and disturbed areas serving as predators corridors, disruption of drainages that support brood rearing habitat, increased mesopredators, etc.

In order to conduct a valid analysis, BLM must avoid fixating over just the acreages destroyed and converted to roads or turbines –and address the complete project Footprint in all phases of the industrial project – as it relates to various animal species and their habitat needs.

4-186 recognizes that the project should promote invasive species. But there is no analysis of the risk and severity of impacts - including taking into account site-specific concerns of harsh area, overlapping weed-promoting activities that prime sites for weed spread (livestock grazing, OHV use) and/or transport weeds from the project disturbance crosscountry.

In the discussion of fragmentation, BLM recognizes current science demonstrating the need to protect sage-grouse strongholds (Wisdom et al. in press), and that this is critical to the species' future persistence.

The noise analysis is greatly inadequate to enable full understanding of the severe impacts of the various jarring construction, turbine low frequency and ultrasound, vehicle noise, and other unnatural noises that will be produced by the project.

The EIS provides current scientific information showing how inadequate the avoidance in the Wells RMP and other avoidance being proposed is:

Oil and gas development negatively affected sage-grouse in seven studies (Naugle, Doherty, Walker, Holloran, & Copeland, in press). Negative responses of sage-grouse to oil and gas development were consistent among these studies, regardless of whether they examined lek dynamics or population demographic parameters. Impacts on sage-grouse at gas fields based on lek counts were apparent out to 4 miles (6.4 kilometers; Walker et al., 2007). Within this distance, lek counts decreased with distance to nearest drilling rig, producing well, or main haul road, and in many cases resulted in the extirpation of leks within gas fields. The probability of lek persistence was also reported to decrease from 87 to 5 percent within approximately 2 miles of leks for fully developed gas fields. Impacts on leks were not detected for 3 to 4 years by Walker et al. (2007) and Holloran (2005) and up to 10 years by Harju et al. (2010). This delay in onset of impact is thought to occur because of high lek site fidelity of sage-grouse (Naugle et al, in press).
Impacts on sage-grouse demographics from oil and gas development demonstrated that populations declined when birds behaviorally avoided infrastructure in one or more seasons and when cumulative impacts of development negatively affected reproduction, or both (Doherty, Naugle, Walker, & Graham, 2008). Sage-grouse hens remained in traditional nesting areas regardless of increased development, but nest initiation rate for females from disturbed leks was reduced (Naugle et al., in press). Yearling females avoided infrastructure when selecting nest sites, and yearling males avoided leks inside of the development (Naugle et al., in press). The fidelity of sage-grouse to seasonal habitat may exacerbate the adverse effect of oil and gas development since birds may return to areas disturbed, but may no longer reproduce (Lyon & Anderson, 2003). Holloran (2005) reported for fully developed gas fields, that populations of breeding males on leks declined by an average of 51 percent compared to only a 3 percent decline at undisturbed leks. A similar population decline was reported …

Also:

Based on the research on the effect of oil and gas development on sage-grouse, it is predicted that sage-grouse would avoid the proposed wind facility (Walker et al., 2007; Naugle et al., in press). It is expected that the majority of avoidance of suitable habitat would occur during construction, major maintenance, and decommissioning. However, given the unknown response of sage-grouse to the presence of wind turbines and operation of the wind facility, it is assumed that avoidance of suitable habitat within 4 miles of project infrastructure also would occur during O&M. Given the population declines reported for sage-grouse after multiple seasons of avoidance of oil and gas infrastructure (Doherty, Naugle, Walker, & Graham, 2008), avoidance of habitat near the wind facility is predicted to result in further declines in sage-grouse populations in the Browns Bench/Shoshone Basin area. Sage-grouse leks within 4 miles of the project area would be adversely impacted by the proposed project, through reduction of lek attendance or avoidance of leks. Since most sage-grouse nests occur within 4 miles of leks (Doherty, Naugle, Copeland, Pocewicz, & Kiesecke, in press), nesting birds could also be impacted within this area through reduced nest initiation rates. Impacts could occur immediately during construction or could take up to ten years to be realized.

The EIS also discusses impacts of the new transmission line (wire heights of 40, 60, 82 and with use sagging to 30 feet).

There is more than "some" susceptibility of injury and mortality from this new powerline. The EIS cites a Nevada study with a decline in leks resulting from a new powerline, and increased nest predators. We stress that all the other disturbance of the wind farm are likely to result in many additional impacts that promote sage-grouse predators, and nest predators too More road kills and human use will subsidize mesopredators. The line and all the other impacts will fragment habitat –creating just the type of situation

were predation is likely to exert a significant impact on the population. All of this must be fully considered.

The various Figures 4.2.2 (series) show seasonal habitat. We are concerned that the Nevada habitat is not as well delineated, and that MET tower placement may already be interfering with significant areas of windswept low sagebrush that otherwise would see greater winter and other use in the Idaho-Nevada border and other areas.

It is also a significant concern that the winter data set is smaller (DEIS at 4-192), and that bird use may vary in different winters. Thus, a several year data set is required for Nevada birds, too.

Another concern that is not represented in this mapping is the suitable topographic areas for sage-grouse including broods to move across this complex landscape. Sage-grouse avoid steep slopes. There are significant canyon and plateau-margin rimrock in many areas on the east face of the rim - above the lek complexes below. If hens with broods are moving up into the more mesic areas at higher elevations, there may be limited preferred movement zones or corridors. Placement of turbines, roads, etc. in areas that interfere with this movement is an additional impact that must be examined.

The discussion of mitigation under all alternatives is greatly inadequate. There is no certainty or effectiveness with the vague promises of the greatly inadequate RES Conservation Plan. Recovery intervals are much too short for sagebrush – especially given the harsh conditions of the site. The developer should not be allowed to call rehab/reseeding of vegetation that it has destroyed "mitigation".

The EIS claims that off-site mitigation, "depending on its location" may require future NEPA. DEIS at 4-196. There is no guarantee, and future NEPA may mean a closed door CE or DNA hidden from the public.

The timing and distance mitigation is greatly inadequate. A five mile avoidance zone must be provided. DEIS at 4-196.

The EIS really ties itself in knots here –first BLM strips the Jarbidge RMP protections. Then it uses a mere one mile avoidance zone, then it lets the door wide open to "emergency access". These so-called "mitigations" have nothing to do with protecting grouse populations from decline and collapse – and really are just a confusion of various time periods and distances that any credible scientist knows will be ineffective – but that BLM decisionmakers can then use to claim "we've mitigated" as they quash biological concerns. There is no credible analysis of the effectiveness of this mitigation in protecting habitats and populations.

As we have previously discussed, claims of "acres avoided" without consideration of their habitat quality and context in the landscape provide no valid basis for comparison. See for example – 4-220 southern inbound haul route option 1 – 7 acres removed, 35,425 acres avoided. This is ridiculous. Using areas not bladed/dynamited destroyed to somehow compare impacts is not valid. Plus the greatly increased human disturbance year-round, the noise, the weeds emanating outward, and the predator-promoting road zone will have a much greater Footprint than "acres removed".

The Comparisons between alternatives discussion for sage-grouse illustrate the glaring failure of BLM to consider a reasonable range of alternatives that would include siting the facility in a much less harmful place. BLM applies a biologically meaningless acreage comparison.

BLM cannot limit itself to only alternatives tailored to maximize giving the developer what it desires. We again stress that the developer has been talking about a Phased approach for years already. This is

especially the case here. Every time we have asked an agency specialist why RES cannot find another site across the millions of acres of degraded BLM Lands between Twin Falls and Las Vegas, we are told "They say because the wind resource is good up there". Yet the mapping of wind and rating of values in the EIS shows that a large amount of the project area only has quite mediocre wind. The project can certainly be moved, or broken up into parts and placed on lands with reasonable wind, and many fewer conflicts.

When selecting alternatives, an agency may consider an applicant's desires, but is not bound or limited by them. It is not appropriate for an agency to rely on the "self-serving statements of the project applicants." Southern Utah Wilderness Alliance v. Norton, 237 F. Supp. 2d 48, 53 (D.D.C. 2002). Instead, the action agency must "to the fullest extent possible . . . study, develop and describe appropriate alternatives to recommended courses of action in any proposal which includes unresolved conflicts concerning alternative uses of available resources." Id. at 54 (citing 42 U.S.C. § 4332(2)(E)). Moreover, "[o]ther factors [other than the applicant's desires] to be developed during the scoping process—comments received from the public, other government agencies and institutions, and development of the agency's own environmental data—should certainly be incorporated into the decision of which alternatives to seriously evaluate in the EIS." CEQ, Guidance Regarding NEPA Regulations, 48 Fed. Reg. 34,263, 34,267 (July 28, 1983).

The DEIS alternatives are all similar. In fact, that may be why BLM puts forth the mind-numbing analysis of comparisons between the acres of direct disturbance – in order to create the illusion of a range of alternatives. For many species, the direct impacts are only the tip of the iceberg of the severe habitat and population degradation and loss that will occur from the project.

BLM has blindly accepted the refusal of the developer to budge a single inch. BLM has not shown that the wind resource here is "superlative", or that the developer must have, or needs, the very windiest spot. BLM fails to adequately disclose and evaluate the wind data for all periods, the harsh winter and other conditions at the site, and the welter of conflicts that make mitigation impossible. All of this must be presented together, and a "hard look" taken at the whole, as well as all the parts.

Columbian Sharptail Grouse

Sharptail grouse habitat spans the entire project area. It is vital habitat for ensuring establishment of a viable population of this native species, and there is currently habitat connectivity between Idaho habitat and areas of Nevada that also would provide suitable recovery habitat. See DEIS at 3-87. Disturbance, including disturbance to mountain shrub habitats, and snowbanks that often sustain these habitats, will adversely impact this bird's needs.

The Project area provides vital habitat for sharptail grouse recovery and connectivity between Nevada and Idaho recovery populations. The Project under any Alt. yet proposed will sever that connectivity and sharptail recovery in the lands in the Footprint of the project. Suitable habitat for sharptails is very limited - so destruction of this critical area will deal a severe blow to these important efforts for a bird that has been reduced to only a small portion of its former habitat in Idaho, and that was extirpated in Nevada.

Raptors, Owls, Passerines and Other Birds

There is so little real information provided on many species. DEIS at 3-88 states that **five golden eagle nests were documented within 6 miles of the Project Area, and 2 of these golden eagle nests are within 6 miles of southern haul routes.**

What is an appropriate Project Footprint for all species – and were intensive surveys conducted throughout the Project Footprint?

Bald eagles also forage on carrion at times, and with continued cattle grazing, there is likely to be plenty of carrion.

A WEST report on-line shows significant owl mortalities in the Columbia Plateau region: short-eared owls account for 8.0% of the raptor fatalities recorded at the regional wind projects studied. Yet somehow the RES consultants did not even bother to conduct owl surveys at China Mountain!

Full systematic surveys must be conducted, and results provided in a SEIS.

DEIS at 3-90 to 3-91 provides a very inadequate analysis of impacts to not only the BLM sensitive species Brewer's sparrow and vesper sparrow, but also to numerous other sensitive and rare bird species of concern. High quality little-fragmented Brewer's sparrow nesting habitat in dense mountain big sagebrush is present across a significant part of the Project area. Even the limited work that the consultants did shows high abundance of Brewer's sparrows.

BLM tries to write off mortalities by saying only one species – Lewis' woodpecker – was observed flying at turbine height. This makes no sense – and appears counter to much of the information in the WEST Young et al. 2009 report, as well as many observations of WWP and others on all our visits to the site. We emphasize that species like Brewer's sparrow, have frequently been documented as mortalities at other wind farms.

Bald and Golden Eagle Protection Act

We believe BLM would be in direct violation of the MBTA and Bald and Golden Eagle Protection Act by placing facilities in an area where significant mortalities and/or displacement of eagles and other forms of "take" are highly likely to occur. BLM is in violation of this Act right now by allowing unmarked wire moored MET towers on BLM lands in both Idaho and Nevada.

Please provide detailed studies and analysis of the local and regional trends in golden and bald eagles for all time periods. Aren't golden eagles in serious decline right now? Isn't this a much bigger concern now than at any time prior in recent decades?

The DEIS refers to a future ABPP - but none has been provided or yet prepared according to agency specialists we have asked about this. An ABPP can't be used to paper over the severe impacts on habitat, and "take" of eagles that would occur with this projec leading to both local and regional population declines. While reference is made to preparation of an ABPP – there is none prepared or provided to date. Any such plan must be provided to the public for full comment in a SEIS.

We are greatly concerned that biologists for agencies will be forced to focus "mitigation" acres on only areas completely destroyed – and not the entire 4-Mle buffer Project Footprint for sage-grouse, or even larger area project footprint for golden eagle.

But since it will be impossible to protect birds and bats no matter what is done with this facility siting, we fear that any ABPP will be a near-meaningless exercise. Our review of the record from other wind projects shows the political arm-twisting that occurs in development of these plans –and that agencies may readily and inexplicably abandon serious concerns about project impacts on bats, eagles and migratory birds when political strings get pulled. The ABPP that emerges then is entirely inconsistent with the agency's previous comments and concerns in the record. The only explanation is political arm-

twisting in the Salazar Interior Department – which oversees both BLM and FWS. Full outside review by experts with no ties to industry or these agencies must occur.

Bats

Much more detail is needed to understand how long and where bat data was collected., and how particular species of bats are using this diverse landscape. How many areas contain elements similar to the high use area?

How will blasting impact roosting bats? How many nights during migration periods were studies done? Why did the spring sampling start so late in the year? Wouldn't it have missed a large number of spring migrants?

Please describe new studies that show bats are killed by barotrauma. Please provide details analysis of cumulative impacts of many other wind projects in the migration, breeding or wintering areas of all sensitive species here. For example: Do the same Brazilian freetail bats that use China Mountain also migrate through Spring Valley where numerous wind farms are proposed with one unfortunately underway, or Wilson Creek-Table Mountain –where deadly turbines are proposed?

Doesn't recent research show bats may actually be attracted to turbines? If so, how can mortality possibly be prevented? What toll is white-nose syndrome taking on many of these species already? What will the cumulative impacts be?

Why is there no detailed species-by-species examination of habitats, population status, and threats?

Why did RES not even bother to identify individual species of bats it detected – but instead just lumped calls into high vs. low frequency? Was it so that the number of species individuals detected of rare species could not be known?

See critique of WEST Young et al. 2009 and other concerns, including concerns about bat vulnerability to white nose syndrome that is causing catastrophic losses. The Young et al report, and other efforts to date aren't even up to the minimal wind industry standards. A SEIS essential to make up for the gaping holes in the bat information alone.

Small Mammals

The discussion of rare and imperiled small mammals – as with passerines and many other birds – is greatly inadequate. These species often provide a prey base for raptors, too. Systematic small mammal live trapping over all habitat types over the entire Project Footprint must occur, along with detailed systematic pygmy rabbit, Piute and other ground squirrel surveys. It is not acceptable to just say potential habitat exists, or that the species "could" occur.

Why is there no detailed mapping, data and analysis concerning the impacts of the project on occupied and potential pygmy rabbit habitat? How will this project fragment, alter and destroy habitats – including through indirect and cumulative impacts like cheatgrass and other weed spread, likely collapse and destruction of burrows, increased predation risk, and in many other ways?

What impact will crosscountry seismic/geotechnical, bulldozing, blasting, etc. have on the pygmy rabbit, hibernating small mammals, burrowing owls, etc? Won't this collapse burrows, as well as crush and kill old growth and mature sagebrush and other protective shrub cover on which many species rely? How

much of the project area will be subject to crosscountry seismic activity? Won't several acres or more in the area of each turbine likely be subject to these impacts?

Where are all deep soil big sagebrush sites that are present? How has fire reduced and altered pygmy rabbit habitat in and surrounding the project area? BLM's Murphy Fire ESR/rehab documents state that 80% of the known pygmy rabbit habitat in the Jarbidge burned in the Murphy Fire. Thus any remaining habitat is critical to survival and persistence of this species, as well as connectivity.

How will turbine noise, flicker motion, and other impacts of the wind farm impact the pygmy rabbit and other small mammals?

We are concerned about the impacts on the white-tailed jackrabbit, a species that has special status in Oregon, and is thought to be declining across its range. This jackrabbit lives in low sagebrush/mountain big sagebrush/bitterbrush/mountain shrub habitats that the wind farm will alter, fragment and destroy. All jackrabbit numbers are very low in Idaho at present, and the low points in the rabbit cycles appear to be getting lower.

We understand that all that has been done for small mammal surveys is observers walking some areas – so there is no way that Preble's shrew, for example, will be positively identified from walking surveys – especially since siting is "flexible".

Much more detailed site-specific studies in all appropriate habitat must be conducted so that the full battery of impacts in this area of undisturbed habitat complexity and biodiversity can be understood. This must be presented in a SEIS.

Reptiles/Amphibians

Here too, the DEIS is greatly inadequate. Intensive surveys over the entire Project Footprint must occur, along with detailed systematic habitat analysis. It is not acceptable to just say potential habitat exists, or that the species "could" occur. See Critique of WEST Young et al. 2009, and WDFG 2009 Wind recommendations.

The short-horned lizard is sensitive in Nevada –and the spread of cheatgrass and other weeds, and other habitat loss and alteration as well as continued mortality from vehicles, all are likely to adversely impact this species.

This project has significant potential to impact several amphibian species – due to the complex, diverse habitats including springs, seeps, wet meadows, streams, and snowmelt runoff areas that are present. All "potential" habitat must be surveyed, and occupied habitat as well as habitat essential for maintain connectivity must be analyses. Large areas of private lands in the western part of the Project have had no surveys of any kind conducted, and the current conditions of the habitat, as well as species occupancy of habitat, is unknown.

How do the cumulative impacts of grazing disturbance, fire, rapid resumption of grazing following fires as well as seedings, and other disturbances already impact birds, small mammals, reptiles, amphibians as part of the baseline? How will the disturbance of this Project amplify such impacts?

Redband Trout/Aquatic Species

The EIS fails to adequately examine the site-specific conditions of redband trout and other aquatic species habitats. It fails to adequately examine the degree of degradation that currently exists. It also lacks

detailed data and analysis of all impacts of the project on directly, indirectly and cumulatively impacting habitats.

There are also several streams, such as Brown's Creek, that should be managed for reintroduction of redband trout - even if this species is not present at the moment. Have fisheries surveys ever been conducted for rare species on the blocks of private land in the Project Area? This must be done.

The Project footprint will promote aquatic species' habitat loss and degradation, including reduced and altered water flows, disruption of headwater areas including snowbanks and deposits that provide ground and surface waters. Increased sedimentation, cattle manure and other pollutant increases are likely to occur in Project disturbed-heavily grazed watersheds.

The Habitat Condition Rating provided in the DEIS is flawed and biased – the ratings appear to be intended to minimally upset powerful livestock operators. It is hard to understand how a high priority would not be placed on protecting China Creek, North Fork Salmon Falls Creek (Rocky and Timber Canyons), Shack Creek, House Creek – and other potential drainages and their tributaries. Why isn't a high priority being placed on protecting highly vulnerable or small populations in headwater areas? This seems the dead opposite of a conservation approach. In fact, species in headwater areas may be reservoirs of genetic diversity important for species persistence. Species, in these relatively higher elevation portions of drainages may also be more likely to persist when faced with added stressors of climate change – as long as adequate flows and suitable habitat conditions persist. BLM is not abiding by its riparian and sensitive species protection requirements in relegating even occupied redband streams to a low and moderate priority status – even with the presence of the federal candidate in spotted frog. In fact, the streams with the more imperiled populations are rated for lesser "restoration" priority.

See WWP Jarbidge DRMP Comments Riparian discussion, and 2011 Riparian Photo Assessment Info compared to BLM's outdated and flawed PFC and other data for waters in and near the Project Footprint. Habitat conditions are not rosy like BLM claims.

Idaho BLM in the DEIS appears to make unsubstantiated inferences from its outdated and inaccurate PFC – i.e. crosswalking limited and old PFC info to try to claim instream habitat conditions are much better than they really are. Yet the necessary current aquatic species habitat condition and occupancy surveys have not been conducted.

The bottom line is that necessary detailed baseline aquatic habitat and species inventories have not been conducted.

Big Game

The simplistic, vapid and substanceless approach of the DEIS is shown in its discussion of big game - "big game species are used by humans as a source of food or for sport". These species are appreciated by photographers, wildlife enthusiasts, etc. and are prey species for native carnivores that are appreciated by many members of the public. They are food for charismatic native predators, like mountain lions, or the gray wolf – a species that still has ESA protection in Nevada. Now that significant numbers of elk are wintering – and some are residing year-round – in the project area, the presence of elk and mule deer here provide an important prey food base for restoration of the gray wolf to Nevada across the Jarbidge Foothills and mountains.

The Project area is a key part of restoration of the gray wolf to its former range in Nevada, and this large-scale disturbance will prevent re-occupation.

The DEIS admits that "quality" habitats are needed by mule deer – yet the wind developer would destroy some of the best remaining/highest quality mule deer habitat. 1239 mule deer were observed in 149 groups.

State game departments do have at least some relevant population and other data. In fact this data is used to set hunting season quotas, overflights are conducted annually, etc. So why is it not presented in the DEIS? Is it because mule deer and other populations have significantly declined following wildfires and with continued habitat degradation and disturbance from grazing livestock– and the project will wipe out one of the only remaining intact habitat areas – so not reporting population declines benefits the developer? In fact, in the aftermath of recent fires in lands to the south of the project area north of Wells, mule deer concerns are so great that many millions of dollars have been spent in building special overpasses over Highway 93.

Here, as in all other parts of the EIS, much more information is needed – including info on the relative important and uniqueness of this landscape for wildlife, especially its high value and productivity.

There has been a dramatic increase in elk numbers and use in the Project Area. WWP site visits found abundant elk sign all across many parts of the Project Area. In fact, it appears to be crucial winter range. At the time of the old RMPs, elk were not even found here. The massive disturbance Footprint of the industrial wind facility will greatly intrude on this habitat of emerging importance – especially as an undisturbed winter habitat area.

Elk numbers have increased dramatically in recent years (the DEIS references 1337 elk observed in 44 groups)– so this area has increasingly become critical for elk, too. Residents in eastern Idaho, where large-scale industrial wind has been developed on private land in critical winter and transitional range areas are reporting seeing wind farms disrupt traditional elk-deer winter use and movement areas.

BLM has failed to measure and consider the toll that livestock are taking on big game habitats in both Jarbidge and Wells lands. The high livestock stocking rates and high use levels have not been balanced with increasing big game reliance on the area – especially as habitats elsewhere have been burned or suffer weed invasion or other losses, etc. This is a matter of significant concern in Antelope Springs and other allotments where livestock impacts on shrubs during grazing episodes – including in snowbank and snowmelt areas – is particularly severe.

The big game Literature is filled with papers and studies on the adverse impacts of roads and human intrusion/disturbance on big game. Yet the full impacts of the construction and operation Footprint of the project for big game are not adequately examined. RES must document the seasonal habitat and use patterns of elk across the Project footprint. (3-102). See WGFD 2009 Recommendations.

WGFD (2009) cites a study showing wind impacts to elk. And in fact, one of WEST's own studies in Oregon was used by ODFW to similarly find adverse impacts of wind development to big game. A WEST study at Horizon's Elkhorn Wind Farm area in northeastern Oregon evaluated the impacts of wind energy on big game (Jeffery et al., Elkhorn Valley Wind Project, Union County, Oregon, Big Game Monitoring Study Report. In a letter to the project manager for the proposed Antelope Ridge Wind Farm near the Elkhorn project, ODFW said that the statistics in the WEST study indicated that, "elk and deer were located further from wind turbines and associated activities in winter 2008 and 2009 compared to the baseline of 2004 and 2005 prior to initiation of construction." ODFW letter to Valerie Franklin, Project Manager, Antelope Ridge Wind Farm, May 31, 2010.

These lands are also potential bighorn sheep habitat –with just a single livestock sheep operator running domestic sheep over a vast area. This prevents bighorn re-establishment in historic and suitable range. If

domestic sheep grazing ends – including if the permit is converted to cows – vast areas of potential bighorn habitat where populations should be restored will have been disrupted by an industrial wind farm. Bighorns are very sensitive to noise and human intrusion. The canyons of Salmon Falls watershed, including China Creek, Player Canyon, and other areas all along the eastern front of the dissected tableland of the Project area would provide very good bighorn sheep restoration habitat.

All of the roading, fencing, and other intrusion across the project Footprint, on top of the tremendous existing impacts of livestock fencing and grazing disturbance, adversely impact pronghorn. See Jarbidge AMS, describing adverse impacts of existing livestock facility Footprint to antelope and other big game in the Jarbidge. There is no baseline mapping of all the fencing that slices across antelope and other big game habitats at present. The burden of livestock infrastructure across BLM, private and state lands, and all the adverse impacts it presently is causing is not provided as a baseline. In fact, any of the fences in the project area have bottom wires so low antelope cannot even get under them. Even though BLM has known for 50 years or more of the hazards of fencing and improper wire spacing for bighorns, the lands of the Jarbidge and Wells RMP are fraught with hazards and barriers to antelope movement.

So the adverse direct, indirect and cumulative effects of even more temporary or other Project fencing in unknown areas and of unknown lengths associated with the wind project "rehab" as well as various permanent fences associated with facilities, on top of all the other grazing and disturbance impacts, cannot be analyzed. The current fencing maze has also contributed to a proliferation of two tracks across the area as ranchers pioneer and drive in roads along fences that then become used by OHVs– thus promoting weeds, soil erosion, watershed degradation, impacts to cultural materials, and human disturbance during sensitive wildlife nesting, birthing, wintering and other periods. See WWP Jarbidge RMP comments Attached. See Mapping of roads in Jarbidge RMP.

The DEIS fails provide a baseline of road densities, and fails to detail the current condition and type of roading that actually exists on the lands of the Project area and across an appropriate an appropriate CESA. This must be done, and then overlaid with mapping and analysis of resource impacts of all livestock infrastructure. How much will this industrial wind development add to this burden, and what will the impacts be? And of course there is an abundance of recent information on the adverse impacts of fences on sage-grouse – including a study done on Browns Bench. Even with markers, injury and mortality to sage-grouse does occur. See Challis LWG report. Plus adding more visual intrusions such as markers may further disturb the visual landscape and potentially alter bird use.

Cultural

DEIS at 3-115 states that 122 cultural resources are found within a one mile radius, citing Idaho SHPO and other studies in Nevada. Where are detailed site-specific surveys across the Project Area and entire Footprint? It is very rich in lithic material, obsidian sources, rock blinds and alignments, plus there is an historic trail. Why haven't these important areas been nominated to the Historic Register? See also concerns discussed in relation to the limited BMPs and other information in Appendices. How will this interfere with the Trail viewshed and setting?

Visual/Natural Setting and Impacts

The DEIS fails to adequately describe and assess the very appealing nature of this beautiful and untrammeled wild landscape, with its diverse and complex landforms and plant communities, long-persisting snowbanks, magnificent wildflower displays, scenic hoodoos and canyons, sweeping vistas of distant mountain ranges, windswept old growth low sagebrush amid red talus stripes, subtle Native American rock blinds, beautiful lichen-covered cliffs, boulders and rock surfaces, - and many other highly appealing and visually pleasing elements.

Much more of the Project Area could be rated VRM II under the new RMP. So adopting this industrial development prior to the completion of the RMP process illegally constrains the range of RMP actions related to VRM. In fact, this area has long been known to be of exceptional visual quality. It is one of the only areas that BLM bothers to place visual protections on in the DRMP. See Jarbidge DRMP Map 40, DRMP at 41.

Why does this EIS obsess so much over Salmon Falls Reservoir? There are vast higher elevation areas within the Project area where one cannot see Salmon Falls Reservoir. We note that during less windy periods hikers near the rimrock (light wind periods are actually quite frequent including in areas where turbines would be placed) can hear the sound of boats on the Reservoir. This gives some indication of the distance sound travels in the high desert environment – and thus of the severe intrusion that the sounds of an industrial wind facility will have. This intrusion includes varying turbine noise, diesel and heavy equipment, snowplows, and potential future water storage batteries or other developments.

Up on the tableland, there is a sense of remoteness. There is an untrammeled wild scenic highland area in a beautiful setting – including with frequent views of the Jarbidge Mountains to the West and many other mountain ranges. Views to the SE, south, and west include many snow-capped mountains, and wild places. The DEIS focuses on the reservoir, ignoring much of the great scenic beauty of the area.

What is meant by an "**OHV viewshed**"? DEIS at 3-136. The wind developer appears to be courting the OHV interests to gain political acceptance of this horrible industrial development – and the DEIS seems concerned about portraying the landscape from the point of view of OHV/motorized interests. Elsewhere, there is reference to a trail network and outhouses. So is full-throttle development for OHVs planned in exchange for OHV interest supporting the project? If so – where is the analysis of the cumulative impacts of that disturbance to wildlife, wild lands, watersheds, native vegetation communities, etc.?

Full and detailed analysis and detailed photography necessary to establish a firm baseline must be provided for all "existing roads" and all areas impacted in any way by the Project. This is necessary to establish a baseline so that the degree of severe change can be understood. It is also necessary to establish a standard for supposed "restoration" and rehab/de-commissioning. Massive road and facility disturbance changes will provide new and expanded ease of access – and jumping off spots for OHVs, and lead to increased use and development including across unimproved roads in the region.

The EIS seems to go out of its way to discount hiking as a current use in China Mountain – omitting any mention of hiking, photography, etc. from its OHV and hunting-biased presentation. See DEIS at 3-138.

Under "seasonality" here, biased information is presented that fails to explain the exceptional quality of the landscape that the industrial wind developer seeks to destroy – as in the DEIS discussion of "summer haze". While the valley below may be hazy, the scenic higher plateau area and sweeping viewshed vistas provide welcome clear wild land skies of vivid blue. This is also a great area for cloud watching - in fact, there are constantly changing cloud patterns highlighted by the very vivid blue skies. Clouds boil over the top of the Jarbidge Wilderness, and end up with all manner of shapes by the time they reach this site. It is a great area for viewing of blue skies, and all manner of clouds, and cloud shadows moving across the landscape in intricate patterns.

The dark night skies, relatively close to Twin Falls also add to the wild land allure – with great stargazing. This is especially so when compared to lower quality areas suffering more light pollution that are touted for stargazing – like the Bruneau area. Full and detailed analysis of how this industrial development will blight night skies must be provided. The blinking bright night lights will be visible from the Jarbidge peaks and the Jarbidge Wilderness area! They will be visible over many hundreds of square miles. A full

assessment of the distance and degree of visibility of all the existing wind projects on private lands on the margin of the Snake River Canyon and Plain to the north must be provided. How far are these projects – relative lowlands – visible? How much more visible will this project be – and how many hundreds if not thousands of square miles will be impacted?

Likewise, the EIS avoids any mention under "seasonality" of the beautiful fall aspen scenery, beautiful spring and summer wildflower displays, beautiful and intriguing complex landscape with intricate form, texture and color patterns – including snowbanks present in to June in many years. The beauty of the mountain mahogany, red rhyolite hoodoos, windswept bonsai-appearing low sagebrush - all add to the exceptional quality of the scenery across the seasons.

The project development will permanently destroy the visual setting – causing vast disturbance zones, linear strips, unnatural pale dynamited rock marring the continuity of the red rhyolite (plus unnatural ugly weeds like tumblemustard that is already growing on the MET tower areas that RES dynamited into old growth low sagebrush and beautiful weathered and lichen-covered rocks, and loss of mature and old growth complexly interspersed vegetation communities.

DEIS claims and analysis at 1-138 is a travesty. It is clear a SEIS must be included to provide adequate visual analysis of landscape character, landform vegetation, roading, viewer sensitivity, and seasonality.

Under Alternatives IVa, IVb and V of the Jarbidge RMP, all of the Idaho Project Area would be managed as VRM 2. See RMP DEIS Map 39, M-40. Please also see WWP Jarbidge RMP comments on flawed BLM Visual analysis over much of the rest of the FO --- illustrating in contrast how remarkable the area targeted by the industrial developer really is if BLM applied a protective Visual Category.

Detailed analysis of how visually intrusive the ugly eyesore MET towers at present are in this sweeping landscape must also be provided. The visual blight caused by the MET towers at present must be used to aid understanding of the severe impacts turbines, powerlines and blading/dynamiting disturbances will cause.

During our recent site visits, we have observed how light changes during the day cause glare of portions of the MET towers that is visually intrusive – and visible over large areas. It is hard to imagine how ruinous the wind farm development would be to this beautiful remote high desert setting.

Transportation and Access

This section fails to provide detailed info and site-specific photographs needed to understand the primitive roading that exists as a baseline for understanding the severe development changes. Other minor roads in this landscape will suffer increased use and likely further expansion of two tracks and jeep trails will also occur as OHV and other use intensifies. Please also see our concerns about disruption or blocking of public access raised by information in the Appendices.

Public Health and Safety

Conditions favoring West Nile virus from pooling of water, disruption of drainages, and other stagnant waters resulting from the project's modification of drainages and snowmelt area, coupled with livestock impacts and developments promoting West Nile across the area, must be examined.

Increased wild land fire risk, increased vehicle use and speed on remote roading, increased OHV use and other motorized use must all be considered.

DEIS at 3-141 lists gas pipelines. Is there a plan for a gas pipeline to be laid?

The DEIS discussion of hazardous substances across the project Footprint fails to mention the potential presence of highly flammable white phosphorus in association with the Saylor Creek Range. The use of this very dangerous substance was recently authorized, as well as any material that may be used or hauled by the Air Force in association with its Bombing Ranges.

The turbine components contain rare earth minerals and potentially other material that may be hazardous. Just what all do they contain?

The project will increase wildfire risk, and thus potential burning of hazardous material, as well as likely increased use of various fire retardant materials.

Large amounts of dynamite will be required to blast roads and place turbines in solid rock. There are safety concerns with this too.

Large amounts of herbicide are likely to be applied – and thus increased exposure to herbicides will occur – including chemically sensitive persons. There is also high potential for drift with herbicide use in a windy setting.

Special Designations/Wilderness Characteristics

The DEIS shows that there are areas that qualify for special designations, and these are being considered under the new RMP. This effort would thwart alternatives being considered under the RMP.

The EIS omits discussion of the Sagebrush Sea and other ACECs being considered under the Jarbidge RMP process. See Jarbidge DRMP Map 110, at M-111, where the preferred alternative would result in all of this area of the Jarbidge foothills being designated an ACEC, as well as areas of the slickspot peppergrass habitat and the ACEC proposal in the area of the northern inbound Haul Route. Also see Alt V – showing a much larger ACEC proposal connecting sagebrush habitats critical for sage-grouse and including slickspot peppergrass with Browns bench and other portions of the project Area.

Black Canyon and Corral Creek must be protected from any Project intrusion, as must Salmon Falls Creek. See Jarbidge DRMP Map 42, at M-43. Detailed assessment and analysis of the many ways in which this project would degrade these high quality scenic wild land areas - and the important unroaded habitat in them must be provided. BLM must also consider areas of high scenic quality in Player Canyon, China Creek and other areas for potential WSA status.

Fire/Fuels/Fire Regimes

This part of the DEIS is based on information on estimated disturbance intervals now known to be erroneous, and shows how out of touch it is with current ecological science related to sagebrush ecosystems. See Knick and Connelly (2009). Examples: Low sagebrush, black sagebrush, mountain mahogany, Wyoming big sagebrush –fire frequency is known to be much more than 35-100 years. See WWP Jarbidge RMP comments.

A great concern here is how all the combined development, operation and other impacts would increase weeds, fire danger from human sources, turbine-caused site desiccation, and snowbank alteration site drying as well.

Why isn't the most current data on fire history used –including the 2010 fire in the China Creek area that resulted in a significant loss of mountain mahogany? Why isn't there a discussion of the adverse cumulative impacts of post-fire grazing and livestock facilities? For example – following the 2010 recent China Mountain fire, BLM built yet another fence in order to allow grazing on nearly all the unburned habitat – instead of pulling Simplot cattle use back to the existing pasture boundary fencing. Such practices greatly promote expansion of cheatgrass and other weeds in the area of new fencelines, and typically further intensify livestock use on remaining unburned habitats for species like sage-grouse and pygmy rabbit that are already in peril. They push the fire/fuels regime further out of balance.

The DEIS discusses various Murphy fire ,and other post-fire seedings – but ignores analysis of the cheatgrass and weed expansion, as well as lack of sagebrush seeding success in many areas.

Lands

How is a one mile livestock pipeline considered a "right of way corridor"? WHAT is being referred to here? When and where was a one mile wide right of way granted for a pipeline?

DEIS 3-150 neglects to detail the MET towers that are located on private and state land.

Adverse impacts of MET towers (on sage-grouse and other species), in promoting weeds like cheatgrass in near-pristine little-grazed areas, at increasing road and OHV impacts, are not provided.

Full adverse impacts of the existing MET towers and their habitat and other disturbance must be provided.

Recreation

This analysis is really poor – and appears to be written to cater to motorized OHV use. Example: "Remoteness" also includes the whole character and feeling of isolation in a landscape – not just distance from roads but also absence of signs of human development.

The DEIS fails to examine how livestock grazing disturbance, livestock facilities, and supplement feeding impinge on habitats and landscape characteristics.

Much more of the area has a back country character than is shown on BLM's mapping. How would this map change if the "temporary" MET towers were removed? How did BLM factor in the eyesore MET towers here? This categories in the mapping are not correct – the diverse rock formations, canyons, mahogany copses and groves, aspen groves, slopes, etc. – either alone or in combination - all serve to make the area feel much more remote and Backcountry-like than BLM represents.

There is a significant amount of hiking, scenery viewing/general sightseeing during the late spring and summer that BLM ignores (DEIS at 3-156). This entire section must be re-done by competent wild land recreation specialists. It is biased, and omits mention of hiking, photography, wildflower viewing, and other pursuits – and emphasizes hunting and OHV use.

In both Idaho and Nevada under the current RMPs, there is no control over crosscountry OHV use throughout the Project Area. While that may change in the Jarbidge - and might have already changed if the China Mountain Wind EIS had not sapped time and energy from the new RMP effort - any new Elko RMP is many years distant. There is great potential for extensive new damage caused by the expanded network coupled with the wind developer allying with some OHV interests.

Livestock Grazing

Grazing impacts are not adequately controlled under the pathetic BMPs. The DEIS analysis of grazing impacts is woefully deficient. Livestock grazing significantly alters critical habitat components of native wildlife species – food, cover, and space. Displacement of native animals to marginal habitats, disturbance and possible increased predation occur due to livestock grazing, too. This project would construct/upgrade an 80 miles of roads at the site itself plus dramatically alter access/transport roading across a huge area; result in large noisy areas avoided by wildlife; and result in habitats for sage brush species that evolved in relatively featureless landscapes to being peppered with tall, vertical objects that would cause both avoidance or direct mortality. As a result, there will be highly significant impacts. BLM must assess the additive and cumulative effects of livestock grazing impacts, and develop ways to mitigate. BLM must also examine the habitats used by wildlife affected or displaced by the Project over the course of the year. Will the lands suffer livestock grazing and management disturbance – and birds be further displaced? What allotments do the sage grouse move through to get to winter habitat? Where do birds from leks nest? How about mule deer? What allotments do golden eagles forage over?

What is the current ecological condition of these lands? BLM found large-scale violations of the FRH across the allotments by and around the Project area –for example in Brackett, Simplot, Guerry permittee allotments like Antelope Springs, Brackett Bench, Cedar Creek. Several other allotments in or surrounding the Project area have never been assessed (China Creek, House Creek, Elko BLM lands)– but suffer from the same substantial degradation. In fact, at present a federal court injunction is in place that prohibits cattle grazing these lands due to the significant FRH violations including degradation of sage-grouse and other wildlife habitats. Yet the primary concerns in the EIS is whether to place plastic or chainlink fence to keep cows from falling in turbine craters. See 2B-16.

Substantial information from the Jarbdige AMS must be applied in analysis of grazing impacts in a SEIS. We incorporate by reference our comments on the draft Jarbidge RMP DEIS, our 2011 comments on the Annual Grazing Plans (including for Antelope Springs, Brackett Bench) and other areas that that would also be severely impacted by the wind farm, and a recent Appeal of a BLM post-fire rehab and other actions for incorporation into this project record. We have provided many concerns about the failure of the DEIS to address the degree and severity of livestock concerns throughout these DEIS comments. There are rampant FRH violations in the allotments where the wind farm is located. We will be submitting the FRH assessments on cd as well. Please also include the Simplot Dynamac and RCI EA in this China Mountain Wind project record, too.

Please apply all concerns related to livestock grazing in these referenced comments and documents to analysis of direct, indirect and cumulative adverse impacts of current and project altered, shifted and/or intensified livestock use in a SEIS.

Additional Concerns

DEIS at 4-2. A 250 ft. buffer area around haul routes and the transmission line is greatly inadequate. Windblown disturbed soil, weed spread, adverse biological effects, noise, mesopredator increases, and all manner of other disturbance will cover a much greater area.

DEIS at 4-2 defines long-term impacts as persisting for more than five years. We agree! Permanent impacts persist beyond de-commissioning However, what are called short term impacts, if promised recovery (as of rehab) does not occur – will end up being long-term, and likely irreparable. In the arid complex ecosystem here, nearly all disturbance to soils, vegetation, microbiotic crusts, watersheds, and rare species habitats, will be permanent. Even what BLM would classify as a shorter term impact – like construction noise – may have a longer term or irreversible impact if it pushes a noise-sensitive species

out of a preferred habitat, leading to population declines from which the population never recovers – and then ultimately blinks out.

Intensity of impacts is analyzed as: Negligible, minor, moderate (readily apparent, a noticeable change) and major (large and readily apparent). Of course, the same disturbance may have a severe impact to hiking use of an area, but a minor impact to OHV use. What are the change thresholds that would determine or measure intensity? Scale of impacts is defined as: Localized, extensive (not throughout project area), area-wide (most of analysis area). It is hard to understand how BLM arrived at the categories for scale of impacts – as the visual blight of the development will dominate the project setting, and the night lights will impose light pollution over a vast area of the Idaho-Nevada borderlands, yet since the turbines themselves "only" take up hundreds of acres – BLM claims in this context that "only" some of the area has been blighted visually (BLM claiming it might not really have to amend the RMP VRM III Class, for example). Clearer definition and specific criteria for use of all of these terms must be applied. For ll components of the environment, including for all important, rare and imperiled species other than sage-grouse, BLM fails to acknowledge the vast disturbance and wild land ruination Footprint of the project.

The whole discussion of Phased Alternatives seems to be a smokescreen to mask the similarity among Alternatives – it creates an illusion that a reasonable range of alternatives was actually considered, when that is not true. Once the developer gets a ROW(actually a series of ROWS it appears) for the project, that ROW will readily be subject to amendment, and changes in how the environmental destruction associated with the Project would unfold. Example: Cotterell Wind Farm in Burley BLM lands that like China Mountain are in the Twin Falls District. BLM approved a ROW circa 2006. The project was not built then, perhaps due to financing issues. Then recently it was split up into smaller parts – in order to try get tax breaks. Instead of conducting a new public process and updated environmental review, Burley BLM planned (and may still be planning?) to allow the project to go forward with minimal review – despite changes in development scheme and configuration. The holder of the ROW is free to sell their interest to another party. This is what occurred with SWIP – a large-scale transmission line that initially had been discussed as linked to CM. ROWS get sold, project location changes yet minimal review occurs, and the holder of the ROW gets a willing Senator to ram a project massively subsidized by taxpayers through.

Bottom line: Once a ROW is issued – it can be amended or used as a steppingstone for other projects at any time, and political tampering can occur at any time, as well.

Cumulative Impacts Table and Other Concerns

BLM lists some projects in the Table at DEIS 4-5, but the DEIS fails to provide essential information to understand and analyze how and to what degree all the various existing and proposed wind projects (including on private lands across the interface with BLM in the northern Jarbidge and elsewhere, MET towers, various proposed transmission lines including SWIP and Gateway and Overland various alternatives, communication towers, etc. may actually affect habitats and populations of species of concern, migrating species that may collide with them, darkness of night skies, sound environment, watersheds, recreation and human use and enjoyment of the public lands, scenic beauty, etc. A detailed discussion of the impacts of all of these projects on migrating sensitive and imperiled bird and bat species must be provided. Plus there are a battery of projects in Nevada that are being proposed as well. Will the same Brazilian free-tailed bats as are greatly threatened by the Spring Valley Wind Project and several other wind projects proposed in their migration corridor also using the China Mountain area –either for reproduction, or migration, purposes?

Why is there no corresponding Table of livestock disturbance and facilities like fences and water developments that alter or destroy spring flows in the watersheds impacted by the Footprint of this

project, and all of their impacts? In the affected grazing allotments, livestock forage and other 100255
seedings/treatments have occurred over the years. The impacts of these projects continue - as exotic crested wheatgrass and weeds that are invading many of these overstocked old seedings are part of the stressors that sage-grouse and other wildlife here face. Of road networks and their impacts? Of OHV impacts – present and over the life of the project? And how all of this is currently adversely impacting, and is expected to continue to adversely impact, resources? Why is there no cumulative effects mapping and analysis for wildfires? And why is the CESA for sage-grouse and many other species drawn t exclude large areas of the Murphy Complex? Is it because of an appropriate cumulative impacts area was actually delineated, and real analysis occurred, BLM would have to admit that this industrial wind project would wipe out the only remaining potentially viable population of sage-grouse in the Jarbidge?

4-5. Three MET towers accompany the wind project, yet the public is not told where they would be located, and viewshed, habitat intrusion, and other analysis thus cannot be conducted by BLM without disclosure of these locations. The wind company couldn't even be bothered to take minimal steps to protect birds and bats from dying in collisions with guy wires when existing MET towers were located on state, private and some BLM lands (like the NV MET tower), and now this proposal would place even more wires as collision hazards across an important migratory bird area.

DEIS at 4-11 assumes "application of design features would minimize impacts". It admits that addition and reconstruction of roads would result in increased use of the area. It states that all roads would be considered for snow removal during construction, operation and maintenance, the project would be de-commissioned in 30 years, there would be various construction spans, and the second phase would be constructed "as proposed" – apparently no matter how severe the adverse impacts of Phase 1. This seems the opposite of adaptive management/learning from past mistakes, "full" revegetation - which can never be guaranteed and is highly unlikely and in fact is impossible given the fragile old growth plant communities that are present – such as bonsai wind swept low sage dependent on spaces in red talus plating), no change in turbines and technology for a project that will be a dinosaur by the time it is built. We again stress that once ROWs are issued all manner of amendments, waivers, etc. can be issued by BLM managers subject to political pressure.

Additional NEED for SEIS: The DEIS is inadequate and incomplete because many of the basic design features of the turbines and other components including the massive road network, the transmission line and its roading, gravel pit siting for all purposes associated with this development, etc. are incomplete. The absence of detailed and precise descriptions of project components and specific mitigation measures renders the agencies' conclusions regarding the project's impacts invalid. The agencies do not disclose impacts from the undetermined elements of the project's design. Merely including this information in a final Environmental Impact Statement ("EIS") does not satisfy NEPA unless a supplement is prepared and the public is given a full and fair opportunity to comment on the missing information. See 40 CFR § 1500.1(b) ("NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken."). The China Mountain DEIS is, in essence, still programmatic and not specific.

Other Considerations

The failure to conduct and provide multi-year radar tracking of night time migrants is of concern, as are the failure to provide adequate vegetation maps, and the failure to provide necessary reports and data so that the public can determine if biological inventories are adequate.

Information is not provided on current populations, predicted populations post-development/during operation, or minimum viable populations for all sensitive species.

Please see all of our preceding comments pointing out questions, concerns, deficiencies related to Environmental Consequences of using this site. Example: Biological resources – as you don't know where the specific sites and many roads will be located, there is no way to understand or assess the impacts on specific vegetation, species, etc.

BLM has not provided necessary vegetation info to understand the plant community characteristics and interspersion. For example, areas of tall older sagebrush required by Brewer's sparrow, vs. low sagebrush –where other species like horned lark would be nesting. So it is impossible to understand how much habitat or population loss may be expected.

If particular weed species are introduced, how rapidly will they spread? How does the health of veg. communities (related to grazing) affect invasion and weed spread. Again, we haven no info on current ecological condition, soil stability etc. across the project area.

The DEIS ignores analysis of the combined impacts of vertical structures, habitat fragmentation, effects of noise and visual stimuli, human disturbance, increased predator presence as roads facilitate movement, powerlines, etc. What will this all mean to species of conservation concern?

It is false to claim that primary effects would occur in direct proportion to the amount of potential habitat removed by Project construction. The impacts of the project and its facilities and infrastructure radiate out across the landscape, and will affect species that avoid vertical objects, noise, human disturbance, fragmented habitats – over a much greater land area than the DEIS is willing to admit.

Since bats follow moth migrations, shut down the facility entirely during this period to limit bat mortality. But first conduct necessary studies to understand such migrations at this site.

Have inventories been conducted for pallid bat and other species hibernacula or nurseries across the project area and entire Footprint of the project? Where are zones of bat use or concentration?

4-23 states: "a comparison of spring radar data and nighttime fatality estimates at the Stateline ... wind plants indicated that between less than 0.01 percent to 0.08 percent of the targets passing through the area resulted in fatalities". We have no idea how many "targets"' are passing through the project Footprint because adequate spring data has not been collected or provided! This data must be collected, and is essential for understanding the importance of the area for avian migration, for assessing facility construction and operation impacts, and incorporation of necessary mitigation (such as not operating turbines at night during migration periods).

How will fatalities be monitored? BLM must be required to check up any third party to conduct daily monitoring of fatalities. What fatality level will trigger changes? What will trigger turbine shut down? Or shutdown of the entire facility and its removal? All of this must be considered in a SEIS.

Move the facility outside the eagle use zone – since all signs point to high eagle use here.

We do not believe that info is uncertain regarding the very likely impacts of the project on sage grouse. The project will introduce significant year-round disturbance, extensive habitat fragmentation, and grouse avoidance/displacement on this critical lekking, nesting and wintering site. Any one of these factors can be expected to have significant detrimental effect – it will be catastrophic. The consultants have long been trying to claim that much is uncertain. Please see RES Consultant powerpoint. Consultants have long been spinning any impacts whatsoever as "uncertain".

Cumulative impacts also include siting and operation of other wind or energy facilities, hazardous fuels or other seeding/veg. manipulation projects that represent habitat loss or alteration, habitat fragmentation processes across the landscape, livestock degradation of habitat further impairing or fragmenting, effects of livestock facilities/infrastructure, increased roading associated with developments, shifts or displacement of wildlife as a result of deforestation, fire, etc. See Connelly et al. 2004.

The "irreversible and irretrievable commitment" underestimates recovery time for native vegetation communities – from low sagebrush (may take 200 years or more to recover to pre-disturbance conditions) to juniper 500-2000 years of age), to mountain mahogany (can live to be 1350 years old).

As this area may serve as a regional wintering area, and connectivity between populations, how much will development here affect sage grouse populations across the region? Why have you not included an analysis of these populations, their numbers, trends, etc.? How is this population connected to, or isolated from, other populations?

We are very concerned that the CESA (Cumulative Impacts Area) for sage-grouse does not include the rest of the Jarbidge FO where losses have been catastrophic. Is this done to minimize understanding of the great significance of the RES-targeted area for grouse? This must be included, since the inbound and outbound northern routes cut through it.

The EIS has not made a significant effort to avoid negative impacts, or clearly lay out details necessary to gauge the full severity of damage to the environment. These can be minimized by: avoiding important wildlife habitats, avoiding major avian migration routes and areas of critical habitat for species of concern, establishing siting criteria to minimize erosion on steep slopes, utilizing VRM guidelines to assist in proper siting of facilities and avoiding areas of scenic beauty or sensitive sage-grouse habitats, avoiding significant cultural resources, and mitigating conflict with other public land uses. Many of the conflicts/impacts here are unable to be mitigated.

We request posting of at least a billion dollars as a bond – as this project will cause long-term scarring of a scenic mountain range, destroy peace and tranquility of wild lands and rural areas, and destroy local and perhaps regional sage grouse populations through loss of critical habitats, including winter habitats. The likelihood of the adverse impacts of this development were well known at the time of the first MET towers – so again, the developer was well-aware of severe conflicts. For example Manes et al. (2002):

- *Impacts other than collisions are cause for much concern; including the fragmentation of grassland and shrubland habitats by wind turbines and associated infrastructure. "Significant evidence suggests that wind power development may entail threats to rare wildlife species and to fragile ecosystems that are already diminished…The greatest of these may come in the form of landscape fragmentation and habitat abandonment by grassland [or shrubland] birds…" (Manes et al. 2002)*

- *"Of particular concern are threats to prairie grouse (sage grouse, sharp-tailed grouse, and lesser and greater prairie chicken)…life cycles of prairie grouse require large expanses of unfragmented, ecologically healthy rangelands… Unbroken expanses of these grasslands and shrublands are also important travelways for migrating birds and mammals (Manes et al. 2002).*

- *"Species that use leks may be especially susceptible to disturbance from tall foreign structures and from noise, which may disrupt their mating communication…biologists are especially concerned about the intersection of the continent's most important grouse habitats and prime wind generation regions. Sage grouse…avoid areas that have tall structures that could serve as perches for predatory birds. There is evidence that this behavioral avoidance occurs, even if anti-*

perching devices prevent raptors from using towers and poles as hunting vantage points." Other avian species *show tendencies for abandoning otherwise suitable nesting sites when tall structures are present. (Manes et al. 2002)*

Springs, Seeps, Wet Meadows, Springbrooks, Streams Data Needed

BLM must conduct a full inventory and assessment of the location, condition and characteristics of all spring, seep and wet meadow areas, including historically wetted sites. BLM must study the role of historic and ongoing livestock grazing and trampling activity (and other disturbances such as roads) in altering, degrading or desiccation of these scarce sites. The inextricable link between the health of springs, seeps and wet meadows and watersheds must be addressed.

Then, the impacts of the Project on top of the existing and foreseeable degradation must be assessed.

Springs are "hot spots of biodiversity in arid lands. 75 percent of 505 springs surveyed by Sada in northern Nevada were highly or moderately disturbed (Sada and Herbst 2001). Degradation of springs is widespread, especially within arid lands like the BFO. Their isolation and small size render many spring communities particularly vulnerable to disturbance and loss.

"The continued development of springs for livestock by ranchers and state and federal agencies also poses a threat to the continued existence of spring biota". These actions typically involve fencing off an area, immediately adjacent to springs, piping most or all of the water off the site to livestock tanks. Although some riparian vegetation may be retained, "the essential flowing character of the spring is lost, and often no exposed water remains on the surface". Livestock grazing poses a serious threat to spring communities. Livestock trampling reduces substrates to mud, can completely eliminate vegetation, and alters flow characteristics. The magnitude is likely great because of complete alteration of vegetation and substrate structure. www.biology.usgs/gov/s+t/SNT/noframe/gb150.htm

Sada and Pohlman (2003) provide a series of protocols to be followed to assess spring conditions. Given the scarcity of springs across these allotments, the extreme damage that has been caused by livestock grazing and other disturbance, often coupled the ill-conceived developments that have occurred, often killing all natural water flows at spring sources, BLM must conduct Level I (locate and provide reconnaissance level characterization of springs, delineate important species distribution and salient aspects of habitat, and unique circumstances/challenges) Level II (qualitatively sample riparian and aquatic communities to determine community structure quantitatively sample salient physiochemical elements to identify aquifer affinities), and Level III Surveys (quantitatively sample to determine aquifer dynamics, sample riparian and aquatic communities and habitats to determine spatial and temporal variation in environmental and biotic characteristics, and to quantitatively determine biotic and abiotic interactions). Identify and characterize all sites. BLM must then follow this with surveys that fully assess the ecological scene, and the effect of management and livestock use and other uses, across a broad area. Surveys must be conducted as baselines, before full-scale project development here alters hydrology, flows, etc.

These Protocols must include collecting information necessary to assess the extreme importance of springs and the continuum of hydric and mesic vegetation communities in their vicinity to sage grouse, especially in providing essential summer brood rearing habitats (green forbs); to migratory birds (deciduous shrubs and trees); and many other important attributes vital to other native animals. Level III surveys can add this element. Thus, in addition to all the important issues raised for consideration, the importance to sage grouse and other wildlife must be fully considered. We believe this elevates all spring areas in the Project Footprint (especially since so much damage - including harmful development - has

been allowed to occur, and the potential at many sites so greatly reduced) that ALL springs, seeps, wet meadows here are worthy of restoration to whatever potential can be achieved.

We urge BLM to very carefully examine all intermittent and ephemeral drainages, as well. Often, water not only persists in intermittent and perennial drainages in pockets as a result of runoff, but seep, spring and mesic areas may be present, and interspersed along the length of these drainages. Erosion, downcutting and lowered water tables stemming from livestock grazing is often a primary cause of perennial reaches becoming intermittent. BLM must also determine if stock ponds or other livestock facilities have been built/placed/gouged into or on top of spring, seep or meadow areas. Restoration potential must be assessed, and plans must be developed to restore such sites and increase perennial flow under all alternatives.

BLM must conduct studies of all desiccated, dried up, or otherwise altered springs, and develop plans for restoration of riparian area structure (areal extent of wetted area, native vegetation components), and flows. The benefits of restored or more natural springs to native species must be assessed. For example, what are the characteristics of a riparian community sufficiently restored to support nesting Cooper's hawks in the vicinity?

Aquifer sources: Springs are supported by precipitation that seeps into soil and accumulates in aquifers (through fault zones, rock cracks, or orifices that occur where water creates a passage by dissolving rock) where it is stored. The hydrology of springs is affected by regional and local geology, and how water moves through an aquifer. This must be assessed in detail in a SEIS for all springs across all land ownership. The analysis must take into account site-specific effects of project development, alteration of snow deposition, etc.

Perched aquifers often characterize high elevations, where local aquifer springs may be fed by adjacent mountain range precipitation, and may change annually due to recharge from precipitation in mountain range. They typically have cool water, and may dry out during extended droughts. *Regional aquifers* support warmer springs fed by several recharge sources that may extend over vast areas. Aquifer flow is complex, and may extend beneath several valleys and topographic divides. Seeps are small springs that support vegetation adapted to drier conditions. Springs may be small, but have larger aquatic habitats, and support larger riparian zones with moist-soil affinity species. Springs are characterized by the morphology of their sources.

Each spring and seep is a unique combination of physical and chemical conditions (Sada and Herbst 2001, Sada and Pohlman 2003). These, coupled with disturbance factors, are dominant influences on riparian and aquatic plant and animal communities. Highly modified springs have less diverse riparian communities, and may include non-natives, and upland-associated species. Plant and animal communities associated with spring-fed wetlands are a function of physical and chemical characteristics of water and soils, proximity to other aquatic habitats, and prehistorical connections with regional drainage systems (Sada and Herbst 2001, citing Hubbs and Miller 1948, van der Kamp 1995, McCabe 1998). Primary abiotic factors that influence biotic qualities of unmodified springs include habitat persistence, geographical and geological settings, and aquifer dynamics Sada and Herbst 2001 (citing Ferrington 1995, van der Kamp 1995). Springs have a more integral connection with ground water than streams (Sada and Herbst 2001).

Substrate composition, water depth, springbrook width, current velocity, conductivity and vegetation influence macroinvertebrate communities. Habitat condition strongly influenced biotic characteristics. Degraded conditions often masked the influences of natural events and chemical characteristics on the macroinvertebrate community structure.

54 percent of aquatic species endemic to the Great Basin springs have suffered population losses and 62 percent have suffered major decreases because of channelization, impoundment, removing water and the introduction of non-natives. **Removing water** from springs through diversion reduces habitat for vegetation and aquatic biota by decreasing springbrook length, water width, water depth, and quantity of water available for vegetation. Groundwater pumping and surface diversion have decreased and dried up many springs and springbrooks in the Great Basin and other areas of the arid West, causing loss of populations and extinctions.

Riparian vegetation at springs may be restricted to area just along immediate boundaries of aquatic habitat, or may extend outward over much larger areas. Wider riparian areas occur where water seeps outward and moistens hydric soils. Species may be restricted to spring sources. Rheocrene-inhabiting species are more similar to stream-inhibiting species, and limnocrene species to lake or pool inhabitants. Springs tend to be more constant environments than other aquatic habitats.

Desertification and Watershed Data Needed

Similarly to the spring analysis, the full impacts of this Project across the landscape in promoting desertification must be detailed in a SEIS. There is an extensive body of scientific literature on desertification of watersheds, including in the western United States. Desertification is defined as: "a change in the character of the land to a more desertic condition", involving "**The impoverishment of ecosystems as evidenced in reduced biological productivity and accelerated deterioriation of soils** and in an associated impoverishment of dependent human livelihood systems". See Sheridan 1981, CEQ Report 1981 at iii. Major symptoms of desertification in the U. S. include: declining groundwater tables; salinization of topsoil or water; reduction of surface waters; unnaturally high soil erosion; desolation of native vegetation (Sheridan CEQ at 1). The existence of any one can be evidence of desertification. As lands become desertified, they become **less productive**, and activities such as livestock grazing become **less sustainable**. Continuing activities like livestock grazing may result in grazing becoming permanently unsustainable across the landscape. In many areas of the Jarbidge and Wells FOs, ecological conditions because of desertification and degradation processes that have already occurred and which are still occurring with chronic livestock disturbance, may have already crossed the threshold between sustainability and, essentially, "mining" of increasingly **non-renewable** natural resources. Desertification can be both a patchy destruction, often exacerbated by drought, as well as **the impoverishment of ecosystems within deserts**.

BLM must assess the levels and degree of desertification that have occurred across the Project Footprint and surrounding lands. This is necessary to understand the current capability and suitability of these lands for livestock grazing, the productivity and carrying capacity of these lands for grazing, the effects of any alternatives developed here, the ability to meet any objectives, and the ability to sustain, enhance or restore habitats and populations of special status and other important species and native plant communities – WITHOUT the added stress of Industrial Wind and a massive road network, blasting of turbine footings, microclimate changes and site drying from turbine operation, snowplowing, and other project disturbances. For example, how has the extensive depletion of understories affected the degree and rate of desertification processes? How has this affected livestock patterns of use, acres per AUM, etc.? What are the acres per AUM across all vegetation types in all conditions across the project Footprint? How many acres per AUM are required to sustain cattle or in low or big sagebrush communities? What actions can be undertaken to halt desertification processes and begin recovery? BLM must also assess the combined effects of desertification and exotic species/weed increase and infestation.

Even PRIA acknowledged that production on many BLM lands was below potential, and would decline even further. To continue the current level of grazing in a Project undergoing the large-scale disturbance

of this of this industrial wind project will result in even further loss of soil, microbiotic crusts, water, watershed integrity, wildlife habitat, and “forage”.

Desertification symptoms in arid lands include: Sparsity of grass; presence of invading plant species - both native and non-native, in grass areas that have survived: plants are of poor vigor; topsoil losses - in many places, topsoil is held only by pedestals of surviving plants. Surface signs of soil erosion include: pedestaling, gullies, rills, absence of plant litter to stabilize soils.

Desiccation and erosion caused by livestock can cause water tables to drop, cause rilling, gullying and arroyo cutting to occur, and result in sediment flow from degraded areas (Sheridan CEQ at 14). Grazing creates drier site conditions for plants due to removal of litter, loss of soil cover, and trampling of the ground that prohibits rainfall from reaching plant roots (CEQ at 15). Livestock grazing exacerbates any climate changes and shifts that may be occurring (CEQ at 16). This is of particular concern in this arid landscape periodically at times plagued with severe drought, and which is facing increasing heat and aridity due to global warming.

The reduction of many species of native bunchgrasses, such as larger-sized native grasses from many areas, signals stress of overgrazing (CEQ at 19). Such losses are vividly shown in BLM’s data for the assessments for the grazing allotments in the Wind Project landscape. For example, BLM’s own rangeland data sheets and FRH assessments for portions of the Antelope Springs allotment state bluntly that in many of the lower elevation pastures, bluebunch wheatgrass and Thurber’s needlegrass sites – these species are largely absent entirely.

Arid land recovers very slowly; soil erosion has exposed soils that are less able to support plant life because of lower organic content; and invader species have become well established and have the competitive edge (Sheridan CEQ at 21). Even though it is well recognized that “the way to end overgrazing is to reduce the number of livestock in the end” (Sheridan CEQ at 22), political pressures from ranchers results in strong political opposition to reduced grazing. Political pressures have hamstrung implementation of the Taylor Grazing Act including in lands of the Project Footprint.

Sagebrush vegetation communities across the West are now showing signs of “extensive changes” and significant stresses, with livestock grazing and aggressive non-native weeds recognized as among important causal factors. Nevada Natural Resources Status Report 2002 http://dcnr.nv.gov/nrp01/bio02.htm . Continued grazing disturbance, degradation and weed invasion will cause native plant communities to cross thresholds from which recovery is very difficult, if not impossible. The decline in sage grouse populations and other species dependent on arid land shrub habitats is a landscape-scale biological indicator that the loss of functions and values of sagebrush ecosystems are serious and widespread. These are also signs of desertification processes across the landscape.

These are stressors already faced by this population of sage-grouse – and now industrial wind is targeting the remaining better condition habitat at higher elevations.

Imperilment of the Sagebrush Biome: Thoroughly Documenting Species Presence is Critical to Understanding Severity of Impacts

It is critical to understand the diversity, species composition and relative abundance of small bird, mammal, reptile and amphibian communities so that the full significance of the China Mountain landscape, and the importance of protecting this landscape that serves as a refuge for native species from industrial wind destruction, can be understood.

Analysis by Dobkin and Sauder 2004,"Shrubsteppe Landscapes in Jeopardy: Distribution, abundances, and the uncertain future of birds and small mammals in the Intermountain West", examined bird and small mammal species in the sagebrush biome. The authors found that "very little of the sagebrush biome remains undisturbed", the **inherent resilience of the ecosystem has been lost and the ability to resist invasion and respond to disturbance has been compromised** (Dobkin and Sauder at 5). At least 60% of sagebrush steppe now has exotic annual grasses in the understory or has been converted completely to non-native annual grasslands (citing West 2000). More than 90% of riparian habitats have been compromised by livestock or agriculture.

The authors distilled a list of 61 species of birds and small mammals that are completely or extensively dependent on shrubsteppe ecosystems, and conducted an analysis of their distributions, abundances, and sensitivity to habitat disturbance to assess current state of knowledge and conservation needs of these species, with focus on Great Basin, Interior Columbia Basin and Wyoming Basin, based on BBS data and other studies.

The Columbia Plateau, Great Basin and Wyoming Basin are among the **least sampled** of all physiographic provinces covered by the Breeding Bird Survey. **Remarkably little** is known about the actual distributions or population trends of small mammals. "Range maps created by connecting the dots among sites where a species has been captured do not paint a realistic picture, especially in the highly altered and fragmented shrubsteppe landscapes of today. For small terrestrial mammals … our results support the view that many of these species now exist only as **small, disconnected populations isolated from each other … it is completely untenable to assume species' presence based on simply on presence of appropriate habitat in shrubsteppe landscapes of the Intermountain West**". Also, the authors "**find no reason for optimism about the prospects in the Intermountain West of any of the 61 species" (at 3). "The results of our analyses present an overall picture of an ecosystem teetering on the edge of collapse** (citing Knick et al. 2003)".

The decline in sagebrush and dependent biota, and the perilous status of populations teetering on the brink of extinction was described in Knick et al. 2003 - highlighting the urgent need for BLM management to protect the remaining better condition lands here, and evaluate alternative sites for industrial wind.

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While wind energy can be responsible, in the case of the China Mountain, it is reckless and senseless environmental destruction that cannot be called "green energy". Instead, it would be red energy – red from the blood of birds killed or maimed by the turbines. This large-scale habitat loss is likely to cause extirpation of the population of sage grouse that inhabits this Idaho-Nevada borderlands area, and devastate eagle and other populations as well – killing eagles over the next 30 years or longer.

We support renewable energy in instances when energy proposals are placed on sites where conflicts with important biodiversity and wild lands values are minimized. Sadly that is not the case in with this terrible proposal. Nearly all of the severe conflicts with the extraordinary irreplaceable values of this landscape have been known for almost a decade now by both BLM and the developer.

It is reckless and irresponsible of BLM and the wind industry to have let this project get this far, for BLM to have chosen to expedite China Mountain over the new RMP, and to continue to impose the intrusion of the MET towers and other RES disturbances in this sensitive area.

We are dismayed that BLM would not extend this EIS public comment period, despite having caved to the wind developer and others in extending the RMP comment period. The new RMP process has slowed

to a crawl, while the old RMP's sage-grouse, riparian, visual and other protections are in the process of being stripped and gutted by China Mountain Wind.

Please contact us if there are any questions about the material we are providing on cd or problems in opening documents, or anything else. We request a meeting with BLM Mangers to discuss our concerns about this disastrous EIS.

Katie Fite

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ATTACHMENT INFORMATION

Information below is pasted from a WWP e-mail to BLM state biologists and others re: China Mountain wildlife studies after we reviewed a cd of information containing a China Mountain wind consultant presentation.

This has new relevance now that we have obtained a copy of the greatly flawed Young et al. (2009) Biological Report that BLM has been refusing to release for public review. The limited and flawed studies in that 2009 Young et al. report form the basis of many invalid claims being made in the EIS.

A SEIS must be prepared based on high quality biological baseline data collected by biologists with no ties to industrial wind and freedom from political interference.

CHINA MOUNTAIN Consultant AWEA Presentation Concerns

Dear BLM and State Wildlife Agencies,

A couple months ago, I received a copy of a presentation given by the Wind Developer RES consultants. This was presented at a Wind Conference in spring 2009 promoting the Wind Developers "Studies" as a Model using China Mountain/Browns Bench for other companies. The Link where I first learned of this no longer works. I have Attached the Powerpoint of the Presentation here.

I am disappointed to learn that BLM may believe the wind company is doing adequate studies. We do not.

The premise of the Developer's studies, as represented to their peers, appears to be that impacts of industrial wind development at China Mountain/Browns Bench are "**inconclusive "**. See Powerpoint screen page 12, for example:

"Background information about sage grouse use of the
site somewhat inconclusive despite several years of
studies on nearby Brown's Bench.
Information regarding lek distribution was inconclusive
– lack of surveys or lack of good lek habitat?
Information regarding seasonal use was inconclusive
– lack of survey or lack of good nesting, brood rearing, winter habitat"

We do not believe that is true. It was known from the beginning that this was an inappropriate place for development of this type – due to its unique natural setting and extreme importance to sage-grouse and other wildlife. Siting an industrial wind facility here violated the USFWS Interim Guidelines that agencies were supposed to be following at the time the initial Jarbidge and Elko MET towers and preference ROWs were authorized.

Further, as I'll discuss later, incremental placement of MET towers in areas of sagebrush and known sage-grouse use is messing up any valid Baseline.

I am not certain what narrative accompanied this Wind consultant presentation, but here are several

concerns from my review of the maps and what it appears that they show:

PLEASE view Screen page 11. Titled: “Sage Grouse Studies” . This shows sage-grouse leks. Look in the Southwest area. This appears to be info from an agency database.

Screen Page 11 shows several leks: Player Canyon West (right by the area where Jarbidge BLM has just allowed the 2 new MET towers to be sited), Cottonwood Creek Bench #8, So. Cottonwood Creek Bench #1 (just inside the NV line right near where Elko BLM has allowed a MET tower to be located – and within one-1/1/2 miles of the new Jarbidge MET towers), and NE Shell Creek.

ALL of these leks vanish from any future discussions - like the 2009 MET Tower EA and analysis.

On all maps the cumulative impacts assessment area/study area for the BB/CM site known from the start to be regionally important for sage-grouse is much too small.

Screen Page 19 shows NO observations of grouse on the upper plateau in ID or NV Nevada. This is despite some of the densest concentrations and most abundant sage-grouse droppings I have ever seen being present in areas from the a mile or so south of the NV border extending to the new 2009 MET towers. RES Consultants lack of sg observations here is baffling and inexplicable.

Screen page 22: One positive note. In contrast to the mapping BLM used in the MET tower EA, and maps used by Jarbidge BLM in 2008, this map shows veg communities AND the presence of low sagebrush - which Jarbidge BLM now has mapped away/overlooked in its mapping efforts. But only for ID – not NV. NV is a blank slate. This mapping also appears to be Potential Veg. The Murphy Complex did not burn significant low sage particularly in Idaho on top of the plateau. The Murphy Complex DID burn a lot of low sage in NV. In my mind, that makes the importance of the remaining low sage, especially in the high plateau area where certainly hundreds of not thousands of sites of grouse droppings are present if they all were to be counted, even more significant.

Screen page 24 Shows leks. The label at the bottom says SG leks 2007 Active since 2003. WWP in the past obtained IDFG lek info from a database that contained 2007 data. At that time, we did not have NV data, just Idaho. That info showed the Player Canyon lek as Unknown. The Consultant mapping does not show Inactive or Unknown leks.

Screen page 27 shows December observations of grouse (blue dots) scattered along the plateau, including in the area where the MET towers were placed. I do not know if this was from Wind Co. telemetry studies??? This info apparently did not make it into the MET tower BLM deliberations.

Screen Page 30 discusses the WY Core Area Concept: ““**New Development or land uses within Core Populations**
Areas should be authorized or conducted only when it can be demonstrated by the state agency that the activity will not cause declines in greater sage grouse population”.

RES Consultants, and apparently RES, must be aware of this advice. Yet they appear to be ignoring it by claiming impacts of development here would be “unknown”.

BLM itself knows full well that there would be very serious impacts of Wind Farm development here.

Why is BLM continuing to allow these actions – actions which right now are certainly affecting sage-grouse use of public lands – to play out any longer? The more dollars and investors that are sunk into a

Wind Farm proposal here – the harder it will be for BLM to deny RES a ROW for the Wind Farm. It seems that BLM is encouraging speculation and financial losses by not putting an end to this all immediately.

BLM's FONSI for new Met towers states:

http://www.blm.gov/id/st/en/prog/planning/china_mountain_wind.html

Although there is some public concern regarding the displacement of sensitive species, the area around met towers MO I 0 and MO II is not suitable sage-grouse habitat because it lacks sufficient sagebrush cover. Sagebrush will not reestablish and provide suitable sage-grouse habitat at these locations during the 3-year grant period that the met towers are present. THESE are the sites with mature low sagebrush where the 2009 towers were authorized. (Note: I had mis-numbered one of the tower #s in my earliest e-mail to you. Towers 10 and 11 were the ones placed).

As the photos I had previously sent to you showed, and the fact that one of the new "studies" involved removing [sage grouse] droppings from tower sites showed, the two Met sites are located IN SAGEBRUSH. We note the MET tower EA is devoid of any photos of the sites.

I am greatly concerned that the incremental placement of MET towers all along the high plateau ridge in unburned low sagebrush is very significantly altering the baseline of sage-grouse use here, and that the grouse are being driven away by the MET tower placement and other RES disturbances. So that there will be no valid Baseline, and the significance of the development here will be minimized in RES "studies".

BLM has aided and abetted obliteration of any valid baseline by mis-representing the vegetation and sage-grouse use at the Met tower sites so it could authorize them and not violate BMPs in its own Wind EIS.

Lack of a valid Baseline would be to the Wind Developer's advantage when state agencies, subject to political pressures, make their final determinations of the effects of the project following an approach that might be somewhat similar to the WY Core Plan. If grouse have already been driven away, impacts of the Wind Farm development on top of the plateau will be found to be less significant.

We have already seen this sound science be cast aside in Idaho with the Burley area Cotterell Wind farm. Yes, everyone knew the impacts to grouse would be extremely significant from Day One in the Cotterell Range. But regrettably – due to political power of the Wind Developers - both IDFG and BLM allowed development to occur. The Cotterell site is not yet developed but this appears to be due to developer Shell Wind pulling out of wind, or other financial snarls. [NOTE: The Cotterell Project is now back, broken into pieces to try to avoid full understanding of disastrous impacts for eagles and other wildlife].

So in the southern Browns Bench area: There are now three MET towers placed in intact low sagebrush in an area of extremely high grouse use (as shown by droppings). Plus several other towers to the north.

Following the 2007 Murphy fire, all this habitat became even more important. Yet BLM allowed the Elko tower to either remain in place/or be erected – I am not sure the exact date it was actually erected. BLM now has allowed RES to place 2 more MET towers just across the state line in the Jarbidge Idaho managed lands.

A rational land management agency with the interests of sage-grouse given fair consideration, would have ordered any existing towers to be removed, prohibited any new towers, and called an end to any additional disturbance to grouse from further consultant studies.

Instead – BLM did just the opposite. The southern area MET towers were placed in sites where there had been known leks, where access is difficult in spring and verifying presence/absence of birds is difficult due to impassable roads. The older Elko tower may also have affected potential increased use of the area by birds after the Murphy fire. Perhaps birds may have shifted lek activity into unburned sage in the area if the tower had not been there.

It also a mystery to me what has happened to the So. Cottonwood Bench #8 and the Player Canyon leks in older mapping. The Powerpoint shows RES lek flights – with no leks found. But have others verified these leks are gone, and were they gone prior to the placement of the Elko MET tower? How thorough have any searches been? I note that RES fight lines in its mapping of its lek flights are more widely spaced on the plateau than in some other areas.

This all is greatly disturbing. The Wind developer studies lack any valid Baseline, which we have been pointing out to BLM for awhile now. Actually since 2002. See also recent Fite e-mail to Ester McCullough (below). Pretending the effects of wind development here would be unknown is not valid. While the exact degree of habitat loss and population decline may not be known for sure, all reasonable evidence points to losses if development goes forward being severe.

Katie Fite
Western Watersheds Project

Katie:

We do not have the information presented at the AWEA conference by David West, however, I have contacted the contractor responsible for the development of the EIS and asked for the information.

From the link to the agenda you provided, it appears the presentation was on the development of the study protocols for sage-grouse studies and the preliminary results from the proposed China Mountain Wind development site. I have also asked if there are any summary reports from data collected for other species. As soon as I hear back from the contractor, I will contact you and let you know what is available.

Please call me if you have any questions, and thank you for your inquiry.

Ester McCullough
Twin Falls District
Project Manager
2536 Kimberly Road
Twin Falls, ID 83301
(208) 735-2072
----- Forwarded by Ester McCullough/TFD/ID/BLM/DOI on 04/01/2009 09:22 AM -----

Richard Vander Voet/TFD/ID/BLM/DOI 03/31/2009 07:35 AM
To Ester McCullough/TFD/ID/BLM/DOI@BLM
cc ID China Mountain Admin Record@BLM
Subject Fw: RES prelim biological results

Rick VanderVoet
Field Manager
Jarbidge Field Office
2536 Kimberly Road
Twin Falls, ID 83301-7975
208.736.2380
----- Forwarded by Richard Vander Voet/TFD/ID/BLM/DOI on 03/31/2009 07:32 AM -----

Katie Fite <katie@westernwatersheds.org> 03/30/2009 08:00 PM
To <Richard_Vander_Voet@blm.gov>
cc
Subject RES prelim biological results

Hi Rick,

I found this on-line. It summarizes RES Consultants presentations related to China Mountain at a Wind Developer Conference.

WWP is quite interested in the "preliminary" findings to date – for ALL wildlife species – ranging from the camo battery-powered Anabat devices with OHV trails going to them to info on migratory songbird migration routes to pygmy rabbit info that the consultants may have obtained to date.

Here is the link:

http://www.awea.org/events/projectsiting09/agenda.html
<http://www.awea.org/events/projectsiting09/agenda.html>

"3:00 pm – 4:15 pm
Sage Grouse
Moderator: Laurie Jodziewicz, Manager of Siting Policy,
American Wind Energy Association (AWEA)

* Overview of sage grouse issues
* Oregon sage grouse update

Christian Hagen, Oregon Department of Fish and Wildlife
Gray Rand, David Evans and Associates (DEA)

David Young, Senior Manager, WEST Inc
Sage Grouse Studies for the China Mountain Wind Project

Study Development, Objectives, and Issues Relate to Sage Grouse
Study Components, Survey Design, and Sampling Effort
Preliminary Results"

May we please receive a copy of the info referred to here and all related documents, including any "preliminary results' for any native biota? It appears the wind company is promoting its research far and wide, and presenting prelim results that BLM has not provided to the public to enable better understanding of all that is underway in the Browns Bench/China Mountain Area.

I find it curious that detailed info from such studies is NOT found in the current 3 new MET Tower EA. In fact, upon reading the EA, I was left scratching my head wondering – WHERE are the rest of the pages in this EA related to biological and other important values.

Thank you for your attention to our inquiry,

Katie Fite
WWP
http://www.awea.org/events/projectsiting09/agenda.html
<http://www.awea.org/events/projectsiting09/agenda.html>

POLITICAL INTERFERENCE CONCERNS /Chilling Effect on Agency Input

Pasted below is information we asked to be entered into the project record for China Mountain in 2008, and we again emphasize it with these DEIS Comments.

August 8, 2008

Dear Jarbidge and Elko BLM,

We ask that these news articles and this letter (with Attached August 7, 2008 *Times-News* article and august 8, 2008 Idaho Mountain Express article) be entered into the project record for both the China Mountain (Brown's Bench) wind farm, as well as the Jarbidge RMP process.

This politically-based demotion overtly demonstrates what has long been known behind the scenes. Idaho State wildlife agency biologists, especially under Gov. C. L. "Butch" Otter, are not able to openly able to express opinions, or provide scientific information and input to federal agency processes affecting powerful ranchers (such as those with the last name Brackett – Brackett family members would make a fortune from this giant wind facility), or other interests that seek to profit from use/exploitation of public lands.

In this case, the Regional head of IDFG, Dave Parrish was slapped and demoted for daring to speak out about well-documented conflicts with a foreign-owned Wind Farm that is allied with local ranching interests, some of whom would profit immensely from its construction.

This action by IDFG under Butch Otter is shameful. It is suppression and muzzling of science. This casts a further pall over any veneer of valid science-based participation by Idaho Department of Fish and Game in the Wind Farm and the Jarbidge RMP processes.

Note also the connection between Mr. (now State Rep.) Hartgen, and the wind farm. Politicians are clearly involved in muzzling science as it is applied to wildlife and public lands.

The Jarbidge ranchers have long resented that Carl Nellis, and Parrish to some extent, would provide concerns about livestock impacts to public lands in the Jarbidge. I also want to stress here that Gov. Butch

Otter's ties to Simplot ranching interests in the area, can not be under-estimated as a significant part of the reason, behind the scenes, that this muzzling of biological opinions and demotion of Parrish occurred.

Under these circumstances, I believe it is essential that independent oversight mechanisms be set up in both the Wind Farm and the RMP to have data, information and analysis vetted and examined by qualified independent scientific experts and ecologists outside the reach of retribution of Idaho's Governor, and also outside the reach of his predecessor Dirk Kempthorne, who is also strongly allied with this same Good Old Boys rancher and developer network. Please recall that it was Mr. Kempthorne, long an ally of the various Bracketts, while a U. S. Senator, who maneuvered the Bert Brackett Juniper Butte Bombing Range deal through. In this infamous deal, now-Otter-appointed state Senator Brackett received $650,000 or more including in harmful cattle water projects on public lands to move his cows off public lands at Juniper Butte that were to be included in the Air Force withdrawn Bombing Range. Instead of ever moving the cows off Juniper Butte – Mr. Brackett now is allowed more cows than ever on Juniper Butte, plus Mr. Brackett got even more livestock facilities such as pipelines ripped into sage-grouse and slickspot peppergrass habitats.

Under these circumstances, with Idaho wildlife officials under Otter's strong-arm control, and Interior headed by a proven ally of the ranchers who may stand to profit or benefit from the outcome of both the RMP process and the Wind Farm process, it is necessary to develop a way to remove both processes from the current political taint and repression of Idaho politicians. These politics now involve overt and visible strong-arming of IDFG biologists who dare to voice science-based concerns. No reasonable person can believe that biologists will be willing, or able, to express sound scientific opinions in these processes.

IN ADDITION:

Times-News
8-7-08

Magic Valley Fish and Game supervisor demoted
Lawmakers call Parrish's letter about wind farm 'inappropriate'
By Jared S. Hopkins and David Cooper

Staff writers
The Idaho Department of Fish and Game has demoted David Parrish as Magic Valley regional supervisor a month after he publicly criticized an estimated $500 million wind project south of Twin Falls.

Parrish's comments prompted a high-ranking legislator to contact Gov. C.L. "Butch" Otter and express concern that Parrish had violated the governor's office's media policy.

Fish and Game announced the demotion Monday to state employees - but did not do so publicly. Deputy Director Virgil Moore confirmed the change Wednesday, and said Parrish's letter to the Times-News about the 185-turbine China Mountain wind farm contributed to his demotion.

Moore and Jon Hanian, a spokesman for the governor, said Wednesday that Otter had no involvement with the decision, though Moore acknowledged that state legislators had contacted Fish and Game Director Cal Groen and commissioners about the issue.

On July 6, the Times-News printed a letter Parrish wrote in response to an editorial endorsing the wind farm project. He wrote that it might benefit the economy but "will have negative repercussions on Idaho's wildlife."

"It's a no-brainer - the footprint of a project that will cover prime habitat sage grouse, mule deer, antelope and other sagebrush dependent species," he wrote. " The addition to the landscape of enormous vertical structures (wind turbines and power distribution towers and lines) has the real potential to reduce the suitability of the area for wildlife. This is not opinion or supposition on the part of our agency; scientific peer reviewed literature supports our concerns."

He closed his letter, "Let the bureaucratic process work before passing judgment on whether the project is good for Idaho or Twin Falls County."

Groen responded nine days latter with his own letter asserting that Parrish gave his own opinion, not that of the agency.

But Idaho House Assistant Majority Leader Scott Bedke, R-Oakley and Sen. Bert Brackett, R-Rogerson, discussed the issue and agreed Parrish's letter was inappropriate.

Bedke said he contacted Otter. Brackett said he stayed quiet because his nephew's property could be used for part of the wind farm.

"I've purposely kept a fairly low profile on it because my nephew is involved in it, and I don't want to be accused of conflict of interest, so I have kept a pretty hands-off approach," Brackett said.

When asked if he suggested that Bedke contact Otter, Brackett said: "I didn't tell him not to. He has his own mind and makes his own decisions and follows his own actions. I agree with what he did."

Bedke said he worried Parrish was speaking too early in the environmental assessment process and he believed the letter, which Parrish signed with his official title, violated Otter's media policy.

In April, Otter Communication Director Mark Warbis e-mailed state employees reminding them to alert him about media interviews and to allow him to review potentially controversial press releases before they go public. Letters to newspapers are not mentioned.

"As someone who watches those issues and reads the newspaper every day front to back, I saw that and thought 'hmm, this seems inconsistent with the directive that came from the governor's office' and it already seems like a conclusion was drawn here," Bedke said.

Carl Nellis, a Fish and Game regional supervisor before his retirement in 2000, disagreed, saying those comments were acceptable in his years at the agency.

"When I was supervisor, I did that all the time," said Nellis, who preceded Parrish. "It depends on how you read it. Any time the media contacts you and requests information, you have to let the governor's office know. It doesn't say you can't write a letter to the editor."

Parrish, who spent 16 years in the Magic Valley office, including the last eight as supervisor, declined comment other than to say he will be transferred to Boise as the fisheries program coordinator.

As for Parrish's new position, Moore said, "It's a demotion from the standpoint of the actual position. It does not affect Dave's financial situation at all."

Moore said the letter to the editor was only one factor in Parrish's demotion and that discussions of his removal went "back months."

"That particular issue is not the primary reason why we would be taking this kind of action," he said, declining to elaborate on what he called a personnel matter.

He also said political pressure from lawmakers was not a factor.

"I know that commissioners and the director himself were contacted by legislators, but it had no influence on my recommendations and interactions with Dave on this particular matter," Moore said.

Stephen Hartgen, a Twin Falls political consultant employed by the company that would build the wind farm and who was recently chosen by Otter to succeed Brackett in the state House, said he had no contact with any public official about the issue and didn't learn of the demotion until Wednesday.

But the involvement of the lawmakers drew the ire of Nellis, who called the move a bad precedent for the agency and its employees.

"In this case it looks like a couple of politicians are in charge of personnel," he said. "The big fallout from this (is) the rest of the folks in the agency are afraid to open their mouths because they're afraid they'll be next."

David Cooper may be reached at 208-735-3246 or dcooper@magicvalley.com.

Idaho's wildlife would suffer from wind farm

(Response to Times-News editorial on the China Mountain wind farm proposal:)

The China Mountain Wind Farm, if constructed, may be positive for the local economy from a tax revenue standpoint, but it will have negative repercussions on Idaho's wildlife. It's a no-brainer - the footprint of a project that will cover prime habitat sage grouse, mule deer, antelope and other sagebrush dependent species.

Impacts will extend well beyond the acreage of sagebrush that's removed to support the infrastructure for the massive project which includes around 70 miles of new and improved roads, up to 15 miles of new power line construction, substations, maintenance facilities and more.

Construction, operation and maintenance of the wind farm will dramatically increase human activity in what was once an isolated area. The addition to the landscape of enormous vertical structures (wind turbines and power distribution towers and lines) has the real potential to reduce the suitability of the area for wildlife. This is not opinion or supposition on the part of our agency; "scientific peer reviewed literature supports our concerns.

The analysis being conducted by the Bureau of Land Management is an attempt to quantify impacts and determine whether the potential benefits outweigh the harm of constructing and operating a commercial wind farm in the China Mountain area.

Let the bureaucratic process work before passing judgment on whether the project is good for Idaho or Twin Falls County.

Idaho Mountain Express

8-8-08

F&G supervisor suddenly demoted

Agency touts speak-with-one-voice policy

By GREG STAHL <http://www.mtexpress.com/index2.php?auth_ID=11>
Express Staff Writer

David Parrish, who spent 16 years in the Magic Valley office of the Idaho Department of Fish and Game, including the last eight as supervisor, has been demoted and transferred to Boise as the agency's fisheries program coordinator.

Magic Valley Region Education Specialist Kelton Hatch declined to talk specifics but confirmed that Parrish left the Magic Valley Region offices earlier this week.

The action came a month after Parrish publicly criticized an estimated $500 million wind project planned for south of Twin Falls. Parrish's letter to the editor, published in the Times News, prompted a high-ranking state lawmaker to contact Gov. C.L. "Butch" Otter and express concern that Parrish violated a governor's office media policy.

Fish and Game announced the demotion Monday but did not do so publicly. Deputy Director Virgil Moore confirmed the change in an interview Thursday and said the demotion was the result of a number of factors that accumulated over a long period of time.

"The issue has to do not so much with the content as with the process," Moore said. "With any written information that we put out we need to be sure that that information is factual and has awareness at all levels of the department."

Moore said that was not done in this case.

"We're in the middle of a process," he said. "It's premature for any of us, before that process is completed, to judge the outcome."

Parrish declined to talk at any length over the move, but said he was surprised.

"I'm leaving a fantastic staff in place to continue to do the great work," he said.

Moore said an interim regional supervisor, fisheries program employee Fred Partridge, will fill Parrish's empty shoes until a new supervisor is hired, preferably from within the agency.

Parrish's letter was printed in the Times News on July 6. He asserted that the wind farm might help Idaho's economy but "will have negative repercussions on Idaho's wildlife."

The letter prompted a response from Fish and Game Director Cal Groen, who wrote later that Parrish had given his opinion, not that of the agency.

Idaho House Assistant Majority Leader Scott Bedke, R-Oakley, later contacted Gov. C.L. "Butch" Otter, asserting that Parrish's letter was a breach of the governor's media policy.

In April, Otter's communication director, Mark Warbis, e-mailed state employees reminding them to alert him about media interviews and to allow him to review potentially controversial press releases before they go public.

Warbis warned that his office must be informed of "all media inquiries," and that he must review any agency press releases before it's sent out if it's anything "that might be controversial at all."

"We are not looking to usurp the role of agency directors in any way, but only to ensure a level of consistency and uniformity in our public and media messaging," Warbis wrote. "As you know, the governor puts a premium on all state agencies' cooperating and working as a team to serve the people. Public disputes on points of policy are inconsistent with that goal. Our media policy is designed to prevent those, but it requires your full compliance."

Idaho House Minority Leader Wendy Jaquet, D-Ketchum, said she is concerned that the state's agencies are not given the opportunity to assess issues as experts. Rather, the rank-and-file uniformity mentioned in Warbis' e-mail indicates that the state's leading experts must now opine as politicians.

Asked if Parrish's move was a political decision, she said, "Oh yea."

"The only part that's a little bit difficult about this is that apparently Dave gave another assessment about another project somewhere along the lines and was warned not to do it. However, I think he felt like he needed to give an assessment based on the issue of the science."

Jaquet called the Warbis memo "another example of a one-party state."

Moore did not couch his explanation of the events in political terms but said, simply, that Parrish had not conformed to department protocol.

"It's not so much about the content as it is being sure about the thoughtful nature of the response," Moore said.

Moore added that staff move around frequently within the Idaho Department of Fish and Game. It is less common in leadership roles, but it happens just the same.

The controls employed within the department are important, he said.

"Any time you have policy discussions on anything, there's generally people on all sides of an issue," he said. "You're going to have somebody who thinks it wasn't done right. Our department has been very responsive to those differences, as have all state departments. That's not right or wrong."

Moreover, Moore said Bedke's involvement did not play a role in Parrish's relocation.

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Wind Energy Glut:

River rises; Northwest wind farms, plants cut back

By TIM FOUGHT, Associated Press – May 18, 2011

PORTLAND, Ore. (AP) — For five hours early Wednesday the Pacific Northwest was running green, almost all of its electricity coming from hydroelectric dams in a river system flush with spring runoff. That's a tiny carbon footprint. But it could also be a blow to the region's burgeoning wind industry, and could kill endangered fish in their spring migration.

The Bonneville Power Administration said Wednesday it followed through on a plan announced last week to shut down most of the region's power generation except that from government dams now running at full capacity.

The shutdown started at midnight and ended at 5 a.m. — while most in the region slept and electricity demand was low.

"Push came to shove," spokesman Michael Milstein said. "We didn't want to do this, and we will only to the extent that we have to."

The shutdown could be repeated overnight Thursday, he said. And depending on how quickly the water flows to the Pacific Ocean, the region is expected to be using hydropower heavily for at least a few weeks.

The volume of runoff is the greatest in more than a decade. The agency says that strains the ability of river managers to balance numerous interests, such as protecting endangered salmon and steelhead, and preventing floods. Among electricity producers, the spring rise is an expected part of operations, but it's causing a problem for the wind segment.

High water can be shunted around the dams through spillways, but that subjects fish to dangerous levels of nitrogen gas bubbles in the churning water, causing something like the bends that human divers sometimes get. Milstein said water quality in the basin now violates standards in both Oregon and Washington state, a key part in a long-running legal battle over running the dams.

Milstein said a federal court order recognizes that the agency has little choice when the water is so high and must put dangerous volumes through the spillways. "There's no question that fish are being harmed," he said.

But a salmon advocate said the high flows are giving young fish, known as smolts, a quick ride to the ocean, like the one their forebears got before the dams were built. That gives more fish a chance at surviving to reproduce a few years later.

"The benefits of moving those little guys quickly to the ocean, as opposed to letting them get lost in the reservoirs, are greater," said Pat Ford of Save Our Wild Salmon.

The Bonneville Power Administration markets about a third of the region's power, from 31 dams and from a nuclear plant on the Hanford nuclear reservation in eastern Washington. It manages transmission for about three-quarters of the region's power, but the high water in the river system has a spillover impact on plants not tied to its system.

Because the region is awash in federal power, the wholesale price of electricity on the spot market is effectively zero.

That enables owners of fossil fuel plants to shut down, save on fuel costs and still supply their customers with federal power. Thermal plant owners in the basin often schedule maintenance and repairs to coincide with the spring rise.
This year's rise is the largest since 1997, but only the 7th largest in the past 40 years.
In the past decade, wind farms nurtured by government regulations and tax benefits have come on-line in large numbers — and are expected to double within the next decade. But they don't share the operational benefits of fossil fuel plants.
The wind is free, so they can't save on fuel, and many rely on tax credits pegged to their production. That's why they've objected to being shut down without compensation. They say the shutdown isn't necessary, will cost them millions in tax benefits and will discourage investment in the business.
Traditional customers of the Bonneville Power Administration, such as public power districts prominent in Washington state, say they'd have to bear that cost so they object to the idea of compensating wind farms.
In anticipation of high water, the Hanford nuclear plant was shut down weeks ago for refueling. The agency sells power wholesale from a variety of fossil fuel plants — coal and natural gas — and markets power from a number of smaller sources, such as landfills and sawmills making power from biomass. Milstein says they, too, would have been subject to shutdowns if they were operating.

ARTICLE on Discussion of noise concerns, including infrasound, by humans impacted by wind farm development. How will noise and infrasound likely impact sage-grouse and other wildlife?

http://www.ottawacitizen.com/technology/great+divide+over+wind+power/4819726/story.html

The great divide over wind power: Where winds blow, storms follow

BY DON BUTLER, THE OTTAWA CITIZEN MAY 21, 2011

Jane Wilson, who chairs the North Gower Wind Action group, stands beside a field near her home that is slated for an eight-to-10 wind turbine project. ‘They’re not little windmills,’ she says. ‘These ones are about 190 metres tall. That’s twice the height of the Peace Tower.’
Photograph by: JULIE OLIVER, The Ottawa Citizen
When Monica Elmes and her husband Neil bought their 35-hectare farm near Ridgetown in southwestern Ontario 15 years ago, the rural peace and serenity was the main attraction. “It was like heaven,” she says. They put their hearts and souls into renovating the old farmhouse. “We did that thinking we’d never have to consider leaving.”
But that was before a 100-megawatt wind farm began operating next door in December. Forty-four turbines, each more than 400 feet tall, now surround her paradisical farm on three sides. The nearest is about 1.5 kilometres from her house.
“It sucks,” says Elmes. “The noise is, at times, huge.” Sometimes it sounds like a pulsing jet engine. At other times, it’s a constant rumble, like an endless freight train passing. Neighbours tell her it’s like living near an airport.
“The range of noise is unbelievable, and it’s all so completely different from what you’re used to that you just stop whatever you’re doing,” Elmes says. “I used to love my neighbourhood. I don’t anymore.”
Elmes is not alone. Fertilized by generous subsidies in the Ontario government’s Green Energy Act, industrial wind turbines are sprouting like dandelions across the province’s rural landscape, finding willing hosts in farmers and other property owners eager to earn some money by leasing their land. There are 914 turbines provincewide, theoretically capable of generating up to 1,636 megawatts of electricity.

The province already has signed contracts with wind companies that will roughly double that number. And it has received applications for a further 3,000 or so turbines, with an installed capacity of 6,672 megawatts, according to the Canadian Wind Energy Association.

Within the foreseeable future, in short, close to 5,000 wind turbines could blanket rural Ontario.

Urban residents, who largely regard wind power as an unbridled virtue, might cheer that news. But in rural areas, the turbine invasion has generated anger, alarm and corrosive social division, pitting those who welcome wind power as an economic boon against those horrified by what they view as a threat to their health, wealth and enjoyment of life.

“There are families in Ontario who no longer speak to each other because of this issue,” says John Laforet, head of Wind Concerns Ontario, a coalition of 57 mostly rural anti-wind groups whose website has attracted nearly 1.5 million views. “It’s perceived that some are prepared to destroy the community in exchange for a few thousand dollars.”

“It’s terrible,” moans Wayne Fitzgerald, mayor of the rural municipality of Grey Highlands, where a wind developer is poised to start construction on an 11-turbine project. “We’re torn on council, we’re torn in the community. The people who are opposed to it are very, very vocal. They feel quite strongly.”

The issue will have a “profound impact” on the outcome of this October’s provincial election, predicts Laforet, whose group is actively preparing to organize against the governing Liberals.

“It’s going to be a real problem for the Liberals because we can mobilize in somewhere between 24 and 26 Liberal ridings in rural areas,” he says. “I’m quite confident that wind-concerns groups can move the bar enough in enough ridings to defeat the government.”

Wind turbines were a lively issue in last fall’s municipal election in pastoral Prince Edward County near Belleville, where a nine-turbine project along a major path for migratory birds is close to proceeding and numerous others are in various stages of development.

Voters responded by electing Peter Mertens, who campaigned against wind development, as mayor. They also transformed what had been a pro-wind council into one that passed a motion in January calling for a moratorium on wind development. About 80 municipalities have passed similar resolutions.

“It became an extremely divisive issue, and it has probably gotten worse, if anything,” Mertens says. Urbanites who fled to the county to enjoy its scenic beauty have found themselves at odds with longtime farm residents who see the turbines as a way to generate needed cash.

Most wind farms are in central or southwestern Ontario. There are 162 turbines in Bruce County alone, with nearly 480 more proposed. Chatham-Kent has 203 turbines, with about 430 more in the works.

Wolfe Island, across the harbour from Kingston, is home to the only wind project in Eastern Ontario. Operating for two years with 86 turbines, it’s the second-largest in Canada. But Kemptville-based Prowind Canada has proposed smaller projects near North Gower, Spencerville, Carleton Place and Winchester.

Opponents have mobilized. The North Gower Wind Action group, formed to fight a proposed eight-to-10-turbine project near the village, has about 300 supporters. “These are industrial structures,” says Jane Wilson, the group’s chair. “They’re not little windmills. These ones are about 190 metres tall. That’s twice the height of the Peace Tower.”

For opponents, the sheer scale of the turbines is only part of it. There are also concerns about their impact on health and property values.

Opponents say studies have found that those living adjacent to turbines have lost between 20 and 40 per cent of their property value. In some cases, properties have become virtually unsellable.

When prospective buyers come to Prince Edward County — a mecca for former urbanites seeking a bucolic alternative —the first thing they ask real-estate agents is whether a property is near an area that may get turbines, says Mertens. If so, they aren’t interested.

Mertens had an e-mail recently from a property owner who’s been trying to sell a lot near one of the proposed projects for two years, without success. “He told me he’s walking away from the lot now. He no longer wants to pay taxes on it.”

Energy consultant Tom Adams, a critic of the Green Energy Act, spoke at a conference last month organized by an anti-wind group in Meaford, near Georgian Bay. Astonishingly, more than 250 people showed up on a sunny spring Saturday to hear Adams and other speakers.
“It was a huge eye-opener for me,” Adams says. “They are so pissed off about this. We’re talking about something really deep here — the protection of people’s land value. People get emotional about that subject.”
A tax assessment hearing now under way could help provide some clarity on the issue. Gail and Edward Kenney are arguing that the 28 turbines they can see from their home on Wolfe Island have devalued their property.
While they can’t always hear the turbines, when the wind is blowing the right way, “it completely fills the atmosphere,” says Gail Kenney. “This is not like the noise of anything I know.” The turbines pollute the night sky, she says, with red lights that flash every three seconds.
The island’s natural heritage has taken a beating as well, Kenney says. The once-abundant deer she used to enjoy seeing have fled. The short-eared owl, a species of special concern in Canada, has all but disappeared from the island’s west end.
Most health concerns are related to the noise the turbines make — particularly “infrasound,” a low-frequency vibration below the normal range of human hearing. Some who live near turbines report disrupted sleep, headaches, nausea, tinnitus and dizziness.
That said, the health impact of turbines has yet to be conclusively demonstrated. In a May 2010 report, Ontario’s chief medical officer of health, Dr. Arlene King, found that scientific evidence to date “does not demonstrate a direct causal link between wind turbine noise and adverse health effects.”
But Dr. Hazel Lynn, medical officer of health for the Grey Bruce Health Unit, reached a different conclusion in a report in January. It’s clear, she found, that many people have been “dramatically impacted by the noise and proximity of wind farms. To dismiss all these people as eccentric, unusual or hyper-sensitive social outliers does a disservice to constructive public discourse.”
Not all people exposed to wind turbines suffer physical symptoms, Lynn said in an interview. But a certain percentage do. “That’s pretty consistent across the world. It’s the same complaints everywhere. And that’s really rare unless there’s some real reason for it.”
More research is required, says Lynn. But that’s hampered by non-disclosure agreements imposed on leaseholders by wind companies, including clauses that forbid them from talking about problems.
“To me, it’s already suspicious before you start,” she says.
Coupled with the Green Energy Act’s removal of local authority over the siting and approval of turbines, this cone of silence has created “a huge sense of social injustice” in rural Ontario, says Laforet. But the Green Energy Act’s cost and ineffectiveness means urbanites are paying a high price, too, he says.
“We see it as a battle all Ontarians are in, because we all lose. We all have to pay more for this power we don’t need. But in rural Ontario, they lose so much more. They lose their way of life, they lose their property values and, in some cases, they lose their health.”
Elmes says she feels “huge despair” at what’s happening. But this month’s announcement that Ontario’s Progressive Conservatives would scrap the lucrative feed-in tariff (FIT) program for wind power projects if elected this fall gives her hope that things could change.
“That’s about the only thing keeping me going. We all just want our healthy, peaceful lives back.”
dbutler@ottawacitizen.com

High-desert hydro: Developers envision more hydropower near China Mountain
By Nate Poppino The Times-News, Twin Falls, Idaho
Publication: Times-News (Twin Falls, Idaho)
Date: Thursday, March 5 2009

Mar. 5--The desert southwest of Rogerson could host a little more water in the near future, according to a proposal by a group of hydropower developers.
Symbiotics LLC, a multi-state company with offices in Rigby and Boise, is seeking permission from the U.S. Federal Energy Regulatory Commission to study building a 1,100-megawatt pumped-storage hydropower project several miles west of Salmon Falls Creek Reservoir, on China Mountain.
According to the proposal filed with FERC for the Corral Creek South Pumped Storage Project, the site would include two reservoirs storing a combined 20,000 acre-feet of water, two 200-foot-tall earthen dams and a nearly one-mile shaft with 10 turbines buried in the rock beneath the site. The project area includes roughly 1,400 acres belonging to the U.S. Bureau of Land Management -- something originally overlooked by developers, who had to resubmit their permit application to correct it.

The end result, said Justin Barker with Symbiotics, would be "like a giant battery": a system that runs water between the two reservoirs, creating power to stabilize wind and solar projects and help utilities in the region meet growing peak demand levels. Spare power from renewable projects could help power the water pump, which would consume more electricity than the site generates.
Construction costs, he said, can near $1 billion for such facilities. But developers aren't at that point: If granted, the FERC permit will allow them to embark on three years of engineering, environmental and economic studies researching the feasibility of the project site, funded through as much as $15 million from private investors and Symbiotics.
Those studies may reveal challenges to building such a project in what's becoming a busy area of the state. Idaho Department of Fish and Game maps show a few sage-grouse breeding sites between the site and the existing reservoir, creating possible conflicts with the struggling birds. A 185-tower wind farm is planned for the hills just to the west, though the two may complement each other. And there's finding the water to fill the new reservoirs -- though operators afterwards would only have to replenish water that evaporates, Barker said.
The initial fill would rely on water purchased elsewhere in the system, he said. But records kept by the U.S. Department of Agriculture's Natural Resources Conservation Service confirm that Salmon Falls Creek Reservoir has been low for much of the past decade and Salmon Tract irrigators haven't had the easiest time securing adequate irrigation water.
"That's one of the biggest issues, is whether we can negotiate with the water-rights holders within the region," Barker said.
If developed, the project would be one of the first pumped-storage operations in Idaho -- others are proposed -- and would generate more than any one dam owned by Idaho Power Co.
Those aware of the Corral Creek proposal, including Fish and Game, plan to take advantage of a current 60-day comment period to get on FERC's mailing list for it. The proposal could be adjusted or scaled back if studies show a need, Barker said -- just as long as it stays economically viable.
Nate Poppino may be reached at 208-735-3237 or npoppino@magicvalley.com
Related Documents
Public notice about the proposed project
Symbiotics LLC's application for a preliminary permit for the Corral Creek hydropower project

ADDITIONAL ATTACHMENT

Concerns about RES Consultant Wildlife Baseline Studies: WEST Young et al. (2009)

We have quickly reviewed the WEST Young et al. 2009 report that is heavily relied on in the DEIS to drawing sweeping conclusions. It is *Wildlife Baseline Studies for the China Mountain Wind Resource Area Twin Falls County, Idaho & Elko County, Nevada*. (Young et al, 2009). This report was not made available to the public, despite public request. We have obtained a copy, but not from BLM and have tried to understand it with quick last minute review.

In fact, WWP's Fite was told by BLM that BLM didn't even have a copy – and that the report resided with the consultant. Following our review of this information – we can see why the BLM wanted to keep it hidden, as it provides only the most superficial of surveys, and many aspects of the work that has been done to date seem designed to mask or confuse understanding of impacts – rather than provide a comprehensive baseline for NEPA's "hard look" requirement, and that is also essential to satisfy FLPMA's non-impairment mandate. These efforts do not even comply with minimal Wind Industry scientific standards.

We are increasingly concerned about the use of the consultants by wind industry. Consultants time after time write reports that lack necessary detailed info on how study points were chosen, conduct only limited and often superficial studies, generalize and fail to adequately conduct comprehensive baseline surveys, sanitize information, often present information in a confusing manner, draw illogical conclusions that always seem to come down in favor of the wind industry, use old studies now known to be erroneous related to other wind facilities, and "average" any significance of any impacts away. The Young et al. 2009 report is a prime example of this.

Among its many flaws, the report does not adequately examine both the diversity and complexity of this landscape - and place it in context as critical landscape for native wildlife species and biodiversity. In the dissected tableland that comprises much of the project area, plant communities are complexly interspersed. With subtle changes in topography, soils can support different veg communities – sometimes several communities can be juxtaposed side by side – and in other cases – there are large blocks of a single community.
Vertically, the landscape is complex too – with beautiful canyons both small and large - some with lush riparian zones or dense stands of woody vegetated areas. Thus, it fails to adequately assess and survey the diversity of habitats in and around the project area and its huge Footprint.

It also fails to provide detailed mapping and discussion of survey points in relation to the complex native plant communities, or the Murphy Wildfire (which occurred in 2007 so certainly a 2008 field report finalized in 2009 should contain this information). Unless detailed information is provided on habitats with adequate survey sites across the Project Footprint –there is no way to understand the adequacy of sampling.

The report relies on far too few fixed point counts and other surveys in this vast landscape – for example, there is only one fixed-point count in Nevada. See Map Figure 3.1.

There is no detailed information on wind patterns, especially seasonal characteristics, or changes in wind patterns, that may relate to migration patterns, and enable understanding of when, were and how spring migrants may move through, and refuel, across the Footprint of the Project.

The "main" roads where BBS-style surveys were conducted do not run close canyon rims, and are generally on flatter terrain. This does not reflect the ridgeline and near-canyon rim areas where many turbine arrays would be located.

Report at iv. What is meant by two mile buffer zone and transmission corridor – is there a two mile buffer by the corridor? Two miles is greatly inadequate. Five miles must be used.

Report at iv. WEST used only one nocturnal migration radar device - with no explanation of how its position was chosen – and where it was actually located. The report claims this sampling was "representative "- but in such a large, diverse, multi-state area – WHAT does this mean, especially with only one site? There is no spring nocturnal radar data at all! This is a gaping hole – especially since the report states from the start that "avian species including raptors (breeding residents and migrants), raptor nests, breeding birds and other nocturnal migrants" were to be assessed through site-specific field surveys See Report at 1.

The consultants did not use night vision or other methods to differentiate between birds, bats and insects on radar, so there is no certainty with many of their findings for the limited radar that was done in the fall. We also note that this began too late in summer to pick up early fall migrants.

WEST did not conduct 2008 spring raptor surveys on the site. Instead, observers were down on Browns Bench, miles away. It would not be possible to see many birds passing by in many, many portions of the Project Area. The distance from the Browns Bench road to rim is 2 or 3 miles or more, plus a vertical distance of a thousand feet or more in many places. There are complex canyon drainages - with the edge of the tableland set far back – Player Canyon rims, China Creek rims, Browns Creek rims, Corral Creek rims, others.

Page v provides near-meaningless comparisons with cherry-picked sites based on older data. Example: Bats in WV, IO, TN. (v)

There were 81 golden eagle sightings – which we believe is a very large number, despite WEST's continued efforts to downplay this. A tally of 240 rosy finches is the most birds of a single species tallied. This seems far too low - there should be a many more of some species like mountain bluebird or horned lark. (v)

The report does not clarify if observers counted bird songs and calls, as well. More Brewer's sparrows, for example, can be heard singing than one might observe during a point count survey.

There are no site-specific owl surveys, no reptile surveys –only an incidental observation of a single species of snake, no amphibian surveys, and no small mammal surveys conducted for the project. Also, there are no butterfly, dragonfly or other insect surveys – including important information on insect concentration areas, or migrating insects like dragonflies.

WEST greatly fails to conduct necessary intensive site-specific surveys for sensitive species – and other important species – in relation to habitats, and the size and configuration of habitat patches. Habitats will be fragmented, altered and/or destroyed by the industrial development. If there is sufficient big sagebrush for Brewer's sparrows to nest – how will blasting a road through the middle of a patch fragment the patch, and reduce its suitability? How many such patches are available – and what is the estimated population then of breeding Brewer's sparrows occupying the site (and likely to suffer severe impacts) from the development?

Sensitive species at vi. This doesn't even list all avian sensitive species for either state – and appears to be some kind of generic list, or cut and pasted for a different wind project altogether. In NV –Prairie falcon, golden eagle, northern goshawk are sensitive species. Is this list pasted from some other Wind proposal document??? Several portions of this document appear to be - including the comparisons and odd

conclusions that repeatedly minimize impacts - instead of providing a basis for understanding project impacts, and minimizing those – as is claimed on p. 1 to be part of the purpose of the field work.

WEST at 3 breaks the study down into percent vegetation communities – but this is a meaningless exercise with gross generalizations. It does not reflect the complex interspersion of different vegetation communities, or even the post-fire vegetation. The effects of the Murphy Fire had to be vividly apparent in 2008 when these surveys were done – yet this does not appear to even be mentioned. How could a report this substanceless be the basis for so many citations in the DEIS?

It also fails to describe the lush canyons, cliffs and rock outcroppings and the great elevational changes in the surrounding landscape. The setting of the Project area and its surroundings is characteristics of the habitat and elevational diversity long known to provide essential refueling stops for long-distance migrants. Species that may rest during migration, or get stranded by bad weather especially in spring may certainly be exposed to turbine, powerline, vehicle collisions, and other sources of mortality from this project. The end result: Figure 2.2 whish really shows only two vegetation types. So – were all the various survey points based on sampling two veg types – scrub-shrub and evergreen forest? Is this the "habitat" that the fixed point sample sites were based on? Report at 8 "sampling intensity was designed to document bird use and behavior by habitat" – but nowhere are the "habitats" defined, mapped, or laid out in any way.

Report at 1 claims there will be an additional report with 2009 info. WWP had to move heaven and earth to even get a look at this report. Where is the additional info – and is it the same as very poor 2008 effort designed to minimize finding anything of significance? The information in the DEIS is limited, often confusing, and greatly inadequate to assess and understand impacts on the avifauna, bats, reptiles, amphibians, small mammals and native carnivores in this very biodiverse landscape. The ONLY information of any merit appears to be the sage-grouse information – and we believe that is only because all eyes are on sage-grouse now, and prominent sage-grouse researchers are watching the project very closely. Plus there is significant information for Idaho, at least, that has been acquired over the past few years. Thus, the info on sage-grouse can't be swept under the rug as readily – unlike rare songbirds, bats and other less species.

The Report at 1 states that the info collected was to be "useful in designing a wind project that minimizes potential adverse impacts". We are baffled by this. The consultants never strayed any distance from the Project area so the project could be placed in context of the superlative value of the landscape targeted for destruction, or be able to make a full and fair determination made of how impacts and wind project design could be minimized with alternative siting. Within the project area, the data for all species except sage-grouse is minimal, and there is no adequate site-specific vegetation and other mapping that overlays planned turbine, road, or other locations.

Table 2.1 relies on old "land cover" info from USGS in 2001. This is greatly simplistic, and inadequate for understanding the Project site – which has suffered significant wildfire effects since that time.

Figure 2.2 shows a mere one mile buffer around the Wind ROW area. This does not even include the powerline or access road areas. One mile is greatly inadequate – especially since the disturbance of imposing an industrial wind facility and its massive road network, blasting and other disturbance in this rugged dissected tableland area will have a much greater Footprint than one mile. Tearing apart the headwater areas and blasting into bedrock above spring and stream systems, coupled with disrupting snow deposition and persistence, is likely to affect riparian systems and the vegetation supported - thus altering habitat available for migrants and residents –over a greater area. Example: Browns, Player, China Creeks, Rocky and Timber Canyons (N. Fork Salmon Falls Creek), dozens of springs that surface on the east face

of the Tableland, or across the area. Plus the noise and visual intrusion, and expanded human disturbance will extend over a vast area far beyond a one mile buffer.

It appears the report then goes on to use this one mile buffer to address animal species concerns. This fails to take into account the mobility of many bird species, shifts and changes in food resources such as insects which will result in shifting areas of use, or raptors switching prey species and areas hunted after ground squirrels go underground in mid-summer. Seasonal changes in prey or food abundance may significantly alter avian use of the landscape. Full and detailed surveys must be conducted over a much broader analysis area – indeed over the entire footprint of the project. The wind development area alone is nearly **50 sprawling square miles**. The footprint of project disturbance is many times that!

Section 3.1 describes the objective of the fixed point counts being to estimate seasonal, spatial and temporal use of the site by birds, especially raptors. First, why does WEST fixate so much on raptors, when there are many migratory bird species, including many migratory passerines of conservation concern, that are at significant risk here and their occurrence, habitats, and habitat use have not been adequately assessed? Second, what is the basis for choosing the sites? The number of sites is greatly inadequate – there is only one site in all of the Nevada portion of the Project Area.

WEST states: "the emphasis of the surveys was locating and counting raptors and other large birds within approximately 800 m (0.5 mi) and other small birds within approximately 200 m". p. 6. How, then, can WEST claim as it does on page 60 (and illustrated with mapping in Figure 3. 7) that due to "inaccessibility" in the spring of 2008, it placed survey points down on the road on Browns Bench? It is impossible to believe that the survey could adequately detect birds far above and miles distant. Distances in a straight line to the Project area boundary from the road down on the flat are often 2-3 miles. Here, as with spring radar data for migrating passerines, it appears that the consultant purposefully avoided any meaningful data collection during the spring migration period. IDFG, NDOW and USFWS cannot rely on this "don't look, don't find" report effort that conceals the importance of this diverse area for springtime migrants.

And in the fall - the mapping shows only 2 observation points. The entire northern portion of the project area (including an area of known abundance from the limited info collected), as well as all of Nevada, lack survey sites. See p. 61.

There is not adequate information provided on how the survey sites in Figure 3.1 were chosen, the vegetation types and habitat composition and complexity they represent, the location of survey points in relation to recent wildfire, and much other essential information. It doesn't seem that there is any mention whatsoever of the recent fire – and in 2008 this would have been VERY evident – did the consultants really go in the field here? The northern area may be very important for birds moving along the Jarbidge Mountain/Elk Mountain-China Mountain area from generally east-west or west-east.

p. 20 states that golden eagle and American kestrel had the highest use of all raptors in the fall, and in winter golden eagles also had the highest use.

p. 20 states that raptor use was highest in spring - yet the raptor surveys appear designed to minimize detection of spring migrants! There is no excuse for WEST not hiking up or otherwise obtaining access to appropriate sites for spring surveys.

Are there vulture communal roost sites in or near the Project? If so, where are they in relation to project components?

WEST relies on flight height of birds to make all manner of predictions. Yet just one period of stormy weather, or changes in wind direction or speed even throughout the day - can result in the same species of birds flying at much different heights. The location and concentration of insect food in air columns, raptors gaining elevation soaring on thermals, all manner of factors can greatly alter how high a bird is off the ground.

Birds in migration - particularly under stormy inclement weather, or night-time migrants, may fly at much different heights than observed during the counts – and this may depend on weather conditions, too. All these tables and comparisons appear designed to cover up the severe risk that this facility will pose for all volant species. Where in relation to topographic features, canyons, vegetation (such as trees) and other features, were all the survey points located?

Bird use was found to be highest at point 2 (near northern part of project area). So what were the vegetation, topographic and other characteristics of this site? And again, how were ANY of these sites chosen? We again stress that RES did not bother to get any spring raptor data from near this area – even thought the northern access route would have provided at least some entry into this area as early as March.

Why weren't studies started in March? P. 9 states that surveys were conducted from May 5-Dec. 2008? This also means that many migrants that may have already been passing through were not detected. Species like Say's phoebe, sage sparrow (a BLM sensitive species), sage thrasher (sensitive species), spotted towhee, many raptors, are already present in southern Idaho by this time, with many having already established nesting territories.

The breeding bird surveys were conducted along the "main" roads. These roads are typically located in flatter terrain, and set back from areas near the eastern edge of the plateau where many of the turbines would be located. There were NO surveys conducted in the lush canyons and drainage networks on the east side of the tableland.

Why go to the bother of making bar graphs of the points where particular species were observed – when the report fails to describe the habitat features of the site (53-59)? These bar graphs, like much of the rest of the report appears to be filler aimed at creating an illusion of data abundance - when in fact just the opposite is true.

The golden eagle was among the most commonly observed species in raptor migration surveys. (64). Yet elsewhere the report claims that many raptor observations were residents.

p. 64 states that "during the spring, raptor migration peaked in **early April"**.

With raptors as with migratory songbirds, the report attempts to extrapolate from the height where birds were observed on the limited WEST surveys to calculate risk. This greatly fails to take into account the variability of flight heights that could occur under varying weather, windspeed, and other conditions. What happens if raptors are "downed" by unfavorable winds, or choose to hunt for prey - they would certainly pass through the turbine blade kill zone then.

p. 79. A two mile buffer for raptor nest surveys is inadequate. Certainly birds come from much greater distance to forage over the project area, and young birds may disperse from much more distant areas as well. Golden eagles may cross mountain ranges to hunt on a daily basis – with distances of 10 miles or more. It is also impossible to understand exactly when any transects were flown. Much more specific info than that transects were flown twice during spring nesting season must be provided. Why weren't ground searches conducted all in and around the project area and the complex canyon systems?

Figure 3.12 shows nest locations from these minimal WEST surveys. We understand that this area is now recognized, based on other recent survey efforts by other parties, to be part of a highly significant raptor nesting complex/landscape. WHY did WEST's surveys and report analysis fail to determine the significance of this landscape and place the avifauna in proper context? Why, at every opportunity, did consultants minimize the importance of the biological values at stake here?

Report at 82 discusses nocturnal radar surveys. The radar surveys are greatly inadequate – and completely omit any radar information on spring migration.

Where was the radar situated? Only one radar unit was used (greatly inadequate for this vast project area of nearly square miles), and the report does not reveal where the van with radar was parked.

We are also concerned that necessary efforts were not made to distinguish birds, bats, and insects showing up on radar- using night vision or other devices.

The report admits that WEST assumptions may be an "oversimplification" (p. 84). A necessary effort to collect valid and comprehensive data must be made so that a hard site-specific look can be taken.

Adequate surveys throughout the spring and late summer as well as fall migration period - must be conducted for a minimum of two years using radar situated at several locations in and surrounding the project area. The only radar data collected was from Aug. 25-Oct. 25.

p. 89 states that actual "targets" exceeded 800 during six sessions –and at one point 100-600 targets/km/hr passed through on just two nights!

The report does not adequately explain the vertical vs. horizontal use of radar - and with only one unit this becomes even more problematic.

In reviewing Map p. 98, we note a lek documented by West in 2008 in the northern part of the project area. This lek appears to be less than two miles from the northern MET tower authorized by BLM two years ago. Did BLM not reveal this lek location to the public – just as it misled the public in the 2008 EA about the presence of intact old growth low sagebrush vegetation at the site of the southern MET towers near the Nevada border? A bird was sited at a historical lek – and BLM proceeded to site a MET tower to make sure the lek stayed "historical"?

Mapping shows the importance of the Nevada portion of the Project area and adjacent Idaho – including the location where BLM placed the southernmost Idaho MET tower, as well as the area west of the NV MET tower – as winter habitat. See Map 101. WWP incorporates by reference our comments, Appeal, and e-mails to Manager VanderVoet, agency biologists, and others concerning the placement of MET towers in what was clearly critical habitat - even moreso in the aftermath of the Murphy fire complex. At least 70% of the sage-grouse habitat in the Jarbidge was burned in the Murphy Complex, along with 80% of the pygmy rabbit habitat. This makes all of the remaining native veg in the Footprint of the Project even more essential for theses species, as well as migratory passerines and other native species. It also makes recovery, not destruction, of identified Recovery habitat vital.

Page 101 mapping reveals that the transmission line location shown in the DEIS is NOT the same as the transmission line locations referred to in the Young et al. 2009 report. In fact, the areas surveyed in the Young report only crossed a small part of the DEIS transmission line and access road route outside the Project boundary.

Report at 10 lists **Brewer's sparrow as one of the four most common passerine species**. Doesn't this mean that this area is of great importance to this BLM sensitive species? Isn't the site even more significant due to the large-scale regional loss of sagebrush habitats for this species in recent fires, and exploding Oil and Gas development to the east in WY-MT?

Bats

We are very concerned that the consultants lumped bats together into two groups – based solely on high vs. low frequency calls. Why in the world weren't species carefully differentiated by qualified biologists?

Then, the consultant used a range map to generalize about what species might comprise the small vs. large bats.

This gross over-simplification appears to have been purposefully devised to mask any clear understanding of the use of the project area by several rare bat species, and the abundance of individual species.

The report then compared this limited data with other cherry-picked facilities, and claimed to thus predict a generic mortality of high vs. low frequency call bats.

Figure 3.31 shows a great lack of information for much of the southern portion of the project area.

Why was the bat activity likely highest at CM-12? Was it because of the presence of water below the site? If so, why weren't OTHER radar sites located in similar situations? Is this the area where a private landowner below has built a pipeline in spring 2011 - thus decreasing any surface water? If so, how will that alter insect abundance?

There are complex rock formations in canyons and outcroppings all along the east side of the tableland, and many areas with water below, or particular wind patterns that may lead to concentrations of insects in areas above rimrock or in the turbine blade or barotrauma kill zone.

This analysis fails to take into account the information that is now known that bats appear to actually be attracted to wind turbines for unknown reasons.

Why weren't searches conducted for particular bat roost areas – including in the rock formations and canyons?

Why weren't studies conducted over the entire year – as bats have been detected in southern Idaho with periods of activity in early spring – and even occasional emergence in winter?

The report mentions that identification was possible for Brazilian freetail and hoary bat – why not spotted bat and several others?

Doesn't the high period of activity on June 28 indicate there are maternity sites here? Again, what are the characteristics of the sites where the most bats of these species were observed – and where are other similar areas? How might these areas be impacted by the wind farm development?

How could the WEST biologists have spent any amount of time in the field, and seen as only a single reptile "incidental conservation" – a racer? This is listed as the ONLY snake seen. Gopher snakes, and rattlesnakes are very abundant. In fact, it is hard to visit the site in June-early July and not see one or more snakes, including in or along the primary northern access route. Is this Table of info even from this China

Mountain site? Detailed and comprehensive site-specific surveys for all native reptiles – as well as mammal species – must be conducted.

Discussion

The discussion section of the report again relies on cherry-picked, and often older data, frequently from different ecological settings, to guess at raptor mortality. Unfortunately, many of the studies cited were done by industry consultants. So if they were as filled with data gaps, omissions or simplistic generalizations as this CM report is, they serve as no sound basis for understanding those site impacts – let alone estimating China Mtn. raptor death risk. Were spring migration studies for these other wind facilities conducted from the valley floor – miles from the site – as were the CM studies? Were point counts begun long after the main pulse of spring raptor migration? Were nocturnal spring migrants ignored in radar studies?

p. 121 describes varying risk for different species – for example at Altamont - kestrels, golden eagles and redtails were killed more often.

It is hard to understand just what occurred with the comparison of use of ridges from fixed point plots. We do not believe that WEST conducted sufficient surveys to draw any conclusions on concentration. Inadequate info has been provided about spring migration and other use of the area as well.

With the limited info provided (fall) it is clear there is significant golden eagle use.

The report cites Erickson 2002 on p. 124 in discussions of mortality – without addressing that much more mortality is now known to have occurred – and more than was predicted in advance in many areas.

We believe there is no valid basis provided for WEST's conclusion that CM does not provide stopover habitat for migrants. There is no basis for this. Necessary surveys were not conducted for spring migration – there are no night-time radar studies in spring. The area contains a great diversity of habitats, including well-watered canyons, springs, and many other areas in close proximity. The area provides a great diversity of habitats that result in high quality habitat for migrants – especially in spring migration periods. Studies conducted on the Berger Tract in much less diverse habitat to the north detected a wealth of avian species. (Julie Randell, Prairie Falcon Audubon pers. comm.). Many of these birds very likely may have used habitats in or near the CM Project area. The Berger tract area lies to the north along Salmon Falls Creek. It is very likely that birds migrating south to north in the spring and that were detected at Berger may have passed over, or rested and refueled, in the Footprint of the China Mountain Project.

The unsupported claims of the WEST report, and the lack of high quality site-specific data and analysis further demonstrate the need for a SEIS, with info collected by USGS or other biologists with no ties to the wind industry.

There is no basis for the conclusion that birds like snow geese will not be affected. This facility will be lit with lurid night lighting on top of turbines. During periods of adverse weather, clouds may mask visibility but the lighting glow visible over considerable area, and waterfowl may indeed be killed by turbines.

Page 126 makes claims about passerines that are not valid, and appear to just be a series of strung together sentences aimed at avoiding addressing significant issues. There appears to be no avian mortality concern too great for WEST to sweep under the rug. First it conducted studies that appear designed NOT to gather critical info. Then it draws sweeping conclusions – including for many species that are BLM sensitive species, and thus are of significant conservation concern.

126 admits that results of regional monitoring provide a basis for understanding mortalities. Then it states that there are very few wind projects in Idaho. This is not the case now – but there have been very few studies. In fact, the large number of wind projects now in place - including all over private lands to the north on the margins of the Snake River Plain - may seriously impact populations of migrating birds that also use the China Mtn area. This is part of the cumulative impacts that must be assessed in a SEIS.

The report sweeps concerns about the sagebrush-obligate Brewer's sparrow under the rug – claiming it is a "common" species – so there is no need to worry about impacts. USFWS, BLM, IDFG and NDOW simply cannot accept WEST's studies and conclusions as a basis for any understanding of the degree and severity of impacts to migratory birds and bats.

p. 12 omits disturbance or harassment of raptors at all seasons of the year, mortality from collisions with powerlines, turbines, MET towers, etc. Table 4.2 contains old and outdated info on raptor nesting in relation to wind projects. PLUS it is not revealed if what appeared to the birds to be suitable nesting habitat served to lure in new nesting birds as the older ones were incrementally killed off by the wind facilities. i.e. is the area near the facility a Kill Zone "sink" for nesting birds?

Again, there was woefully inadequate night-time radar sampling – with no data for spring, and only one unit in an undisclosed location used in fall. Gathering comprehensive data is critical – especially in the West. The report admits that the percent of targets closer to ground level – that is within the turbine kill zone – was greater at China Mountain

Table 4.3 shows the flight altitude of fall migrants at CM is squarely within the turbine kill zone.

p. 132 claims that the data do not suggest that nocturnal migrants concentrate in CM. Again, WEST never collected spring data, or sufficient fall data over a sufficient period of years. The report (and the DEIS) also do not take into account how the glow of the nightlighting - visible over a very large area on this high tableland area –is very likely serve to attract night-time migrants – especially under cloudy or overcast conditions – and lure and/or confuse them resulting in their death from turbine, powerline, MET tower, or other collisions.

The report also concludes on the basis of no information that many of the sightings of eagles are residents – when in fact birds may be dispersing from other areas.

p. 134. The WEST report sweeps bat concerns under the rug – what relevance, really, do eastern US fatalities have to understanding the complex arid environment of China Mtn? This is not the Appalachians – so if bat activity was lower than WV, IO, or TN – so what? We also stress that eastern locations are much more likely to have a much broader base of info already known and have had longer scrutiny – and more oversight on consultant claims of insignificance.

It is most alarming that nearly so much of the DEIS analysis rests on the WEST Young 2009 report – and the report itself is so poor - full of huge data gaps, and misleading conclusions often drawn out of thin air.

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Wyoming Game and Fish: Recommendations for Wind Energy Development in Crucial and Important Winter Habitat. October 2009 (10/26/09 Draft).

We have excerpted some relevant information from a Draft Wyoming Game and Fish document on collecting biological baseline information on the biological impacts of wind farm development in arid sagebrush landscapes. Since this was prepared, significant sage-grouse and other studies show the much larger distances that roads, and energy development, impact birds than was recognized by WGFD here. This should be contrasted with resounding lack of valid studies for all species other than sage-grouse to date.

Reptiles and Amphibians

WGFD states:

Amphibians are highly dependent on water to complete their lifecycle (aquatic tadpole or larval phase). Loss of water on the landscape during the larval period could negatively affect amphibian populations. This effect could be exacerbated with successive years of water loss. Road mortality may increase during specific times of year based upon breeding chronology. Spring breeding migrations and summer postmetamorphic emergence, result in amphibian congregations which could affect mortality events if these congregations were located on or near roads. Additional data is needed regarding the effects of wind energy development on amphibians. It is recommended that surveys be conducted on a diverse array of amphibians and habitats to ensure that impacts are minimized.
Potential impacts to amphibians species will vary based upon location and species present. Impacts that could potentially occur include: 1) mortality associated with infrastructure development; 2) disturbance due to shadow flicker; 3) disturbance due to noise; 4) collision and mortality due to vehicles.
Information regarding the effects of wind energy development on reptiles is lacking. Energy development is likely to affect reptile species differently based upon life history. Development infrastructure could potentially increase basking opportunities for many reptiles, but could disturb daily routines due to shadow flicker and noise disturbance. Many reptile species are dependent on rocky outcroppings or accessible geologic features for hibernation, and thus, it is suggested that these features are avoided to ensure the integrity of hibernacula (overwintering areas or dens). Additionally, many species of reptile are dependent on cover features present on the landscape. Direct road mortality is of particular concern for reptile species. Additional data is needed regarding the effects of wind energy development on reptiles.
Potential impacts to reptile species will vary based upon location and species present. Impacts that could potentially occur would include: 1) mortality associated with infrastructure development; 2) direct mortality from workers (e.g., deliberate killing of snakes); 3) disturbance due to shadow flicker; 4) collision and mortality due to vehicles.

There has been no effort to collect the necessary baseline info on amphibians so that impacts can be understood. WGFD recommends systematic acoustic surveys for amphibians.

Bats

Wind energy developments can impact resident and migratory bats depending on site location and the species that are present. Four types of impacts are anticipated: 1) direct mortality due to collisions with turbines; 2) direct mortality resulting from rapid decompression of lungs due to changes in atmospheric pressure caused by the rotating turbine blades; 3) displacement of bats from preferred feeding, and mating areas; 4) alteration of migratory pathways.

There is growing concern that impacts to bats from wind energy development projects are substantially underestimated (Arnett 2006, Kunz et al. 2007a, Arnett et al. 2008). Because bats are small, nocturnal, and cryptic, bats are often overlooked during carcass searches, making it difficult to assess mortality accurately. Moreover, until recently, post-construction surveys were aimed primarily at assessing the impacts to avian species and often failed to incorporate methods to locate bats into their study design. As such, impacts to bats, resulting from increased wind energy development, are predicted to be substantial in the near future. This has led researchers to hypothesize that the abundance of North American bats could significantly be reduced within the next 10 years if efforts are not undertaken to minimize impacts to bats (Kunz et al 2007b).

Almost half of the 18 bat species that occur in Wyoming have been associated with fatalities at wind energy facilities in the United States (Johnson 2005). Most of the fatalities tend to occur in the early autumn, which appears to coincide with the migration of several species. Most of the bats killed at wind energy facilities tend to have similar life history characteristics (Johnson 2005, Arnett et al. 2008). Tree roosting bats, eastern red bat (Lasiurus borealis), hoary bat (Lasiurus cinereus), and silver-haired bat (Lasionycteris noctivagans) comprise the majority of carcasses located during ground searches and appear to be most susceptible (Kunz et al 2007b, Cryan and Brown 2007, Johnson 2005). Although Johnson (2005) reported other bat fatalities at wind energy facilities occur their frequency is much lower. Other species that are susceptible include the big brown bat (Eptesicus fuscus), brazilian free-tailed bat (Tadarida brasiliensis), eastern pipistrelle (Pipistrelle subflavus), little brown bat (Myotis lucifugus), northern long-eared myotis (Myotis septentrionalis). Until additional data is available suggesting otherwise, we should assume that all bat species are vulnerable.

Bats need not always collide with turbines to have fatal encounters at wind energy facilities. Researchers have recently discovered that collisions with wind turbines only accounted for about half of all mortalities at a wind energy facility in south-western Alberta, Canada. Necropsies of bats located during ground carcass searches revealed that nearly 90% of all bat mortalities included internal hemorrhaging caused by rapid decompression due to negative pressures created by rotating turbine blades (Baerwald et al. 2008). Barotrauma was reported to be the proximate cause of death for all bats that showed no external signs of fatal injuries.

WGFD continues:

Why bats are susceptible to fatality at wind energy facilities is poorly understood. Cryan and Brown (2007) hypothesized that turbines may be mimicking features on the landscape that bats are attracted to and may serve as rendezvous sites for migration or mating. Kunz et al. (2007b) developed an additional 11 hypotheses that could explain the reasons why insectivorous bats have fatal interactions with turbines.

"Linear corridor hypothesis. Wind energy facilities constructed along forested ridge tops create clearings with linear landscapes that are attractive to bats.

Roost attraction hypothesis. Wind turbines attract bats because they are perceived as potential roosts.

Landscape attraction hypothesis. Bats feed on insects that are attracted to the altered landscapes that commonly surround wind turbines.

Low wind velocity hypothesis. Fatalities of feeding and migrating bats are highest during periods of low wind velocity.

Heat attraction hypothesis. Flying insects upon which bats feed are attracted to the heat produced by nacelles of wind turbines.

Acoustic attraction hypothesis. Bats are attracted to audible and/or ultrasonic sound

produced by wind turbines.
Visual attraction hypothesis. Nocturnal insects are visually attracted to wind turbines.
Echolocation failure hypothesis. Bats cannot acoustically detect moving turbine blades or miscalculate rotor velocity.
Electromagnetic field disorientation hypothesis. Wind turbines produce complex electromagnetic fields, causing bats to become disoriented.
Decompression hypothesis. Rapid pressure changes cause internal injuries and/or disorient bats while foraging or migrating in proximity to wind turbines.
Thermal inversion hypothesis. Thermal inversions create dense fog in cool valleys, concentrating both bats and insects on ridge tops."
Preliminary information suggests that the fatalities of bats at wind energy facilities may be predictable events following certain weather patterns (Cryan and Brown 2007, Arnett et al. 2008). Hoary bats migrations appear to be predictable events following nights with high cloud cover, low wind, and low barometric pressure. Other studies in the eastern U.S. support the conclusions of Cryan and Brown (2007) and reported that fatalities were higher on nights with light winds (Fielder 2004, Arnett et al. 2005, Arnett et al. 2008). Overcast nights and low barometric pressures are also consistent with observed migration patterns for passerine birds (Alerstam 1990, Pyle et al. 1993), suggesting that both birds and bats migrate under similar conditions coinciding with the passage of cold fronts.

The report and the DEIS are woefully deficient in assessing weather in the Project Footprint - including wind patterns, and how facility development may impact bats.

Big Game

WGFD states:
the potential exists to
displace big game species from important seasonal habitats particularly crucial winter ranges. In addition, if displacement does occur additional impacts could include a loss of connectivity among necessary seasonal habitats including migration routes, parturition areas and important summer ranges all of which provide essential habitat components to maintain big game populations

To date there has been one single study performed on the direct effect of wind development on elk (Walter et. al. 2006). This study found that elk were displaced from the wind development area during construction but after construction was completed less displacement was noted. However, elk are still avoiding the immediate area after implementation (Smith 2008).

And these were elk that were certainly more habituated to human disturbance than the CM elk.

In other published literature (Perry and Overly 1977, Rost and Bailey 1979, Lyon 1983) elk have been demonstrated to be highly sensitive to motorized disturbance from roads and will actively avoid roads open to vehicle travel. The network of roads that is constructed within wind farm developments in elk habitat is likely to displace elk to a degree from the area depending upon the amount of human activity. Increased human activity, often associated with roads, can displace elk increasing movements and associated energetic costs (Rumble et al. 2006).

Grouse Species

WGFD states:

Anticipated impacts of wind farms specifically include: collisions with turbine blades, fences, guy wires, power lines, and vehicles; behavioral avoidance and habitat fragmentation; auditory and visual disturbance; increased predator access; poaching; spread of invasive weeds; and increased fire frequency (Leddy et al. 1999; USFWS 2003; Connelly et al. 2004; Manville 2004; Sharp 2005; Schroeder et al. 2006). Impacts from high-tension transmission and electric distribution lines include: behavioral avoidance, habitat fragmentation, collisions, and increased predator access (Aldridge 1998; Braun 1998; Connelly et al. 2000; Boisvert 2002; Braun et al. 2002; Hagen 2003; Wolfe et al. 2003a, 2003b; Pitman 2003; Hagen et al. 2004; Patten et al. 2004; Connelly et al. 2004; and Hoffman and Thomas 2007). Lacking specific research, it is prudent to expect that industrial-scale wind farms will have significant impacts on both sage-grouse and sharptailed grouse primarily due to habitat alterations and behavioral avoidance.

Several studies have also documented a "shadow flicker" effect resulting from the projection of moving turbine shadows onto the ground, roads, or buildings (Nielsen 2002; DWEA 2003; Hotker et al. 2006:24; National Research Council 2007; Hewson 2008). There is speculation that this "flicker" effect may resemble avian predators and disturb grouse and other small prey species that are sensitive to avian predation from overhead. Depending on the sun's angle, shadow flicker will affect the entire area of the wind farm and may extend up to a couple hundred yards from the outermost turbines.

Impacts to sage-grouse and sharp-tailed grouse by wind energy facilities have not been specifically studied, but information from other energy studies lend some insight. For prairie grouse, there is a considerable body of literature describing impacts of roads, powerlines, and natural gas wells. Roads with light traffic (1-12 vehicles/day) were correlated with less successful nesting by sage-grouse hens (Lyon 2000). Light traffic near leks may also reduce nest-initiation rates and increase distances hens move from leks during nest-site selection (Lyon and Anderson 2003). In addition, Braun (1998) determined habitat use by sage-grouse was impacted by powerlines up to a distance of at least 600 m. Recent studies have determined that sage-grouse leks are impacted by nominal levels of natural gas development equating to 1 well pad/mi2 within 2 miles, and are highly impacted when development exceeds 2-3 well pads/mi2 (Naugle et al. 2006; Walker et al. 2007; Doherty 2008; Walker 2008; Doherty et al. 2008; Naugle et al. in press). Wind farms typically contain much higher densities of tall structures (e.g., >13 turbines/mi2) that are associated with motion, shadow flicker, and noise.
Concerns exist that wind farms will cause significant adverse impacts to sage-grouse …

Migratory Passerines

The WGFD report stated:

Although wind energy is touted as a "green" industry, it does possess its own array of adverse impacts to wildlife and wild lands. An estimated 33,000 birds are killed annually in the United States due to wind energy, 26,600 of which are killed in California alone due to the sheer number of facilities and older turbine designs that are in place (Erickson et al. 2001).

This number is now known to be woefully low. In fact, the estimate for the mortality at the CM wind farm alone is over 30,000 birds!

The design, placement, and layout of wind energy facilities can make birds more vulnerable to collisions, especially where species are more likely to collide with structures due to relative abundance, behavior, topography, and linkage with specific habitats (Erickson et al. 2002, Hoover and Morrison 2005, Kuvlesky et al. 2007, Rugge et al. 2003). For example, additional impacts to raptors are created when turbines are sited on steep slopes and hillsides, canyons and draws, ridge crests and peaks within canyons, and when rock piles that attract prey species are located near turbines (Hoover and Morrison 2005, Kingsley and Whittam 2003, Smallwood and Thelander 2004).

Passerines comprise the majority of fatalities at wind energy facilities with newer designs (taller towers with larger rotor blades and slower rotor speeds), with the peak of fatalities occurring during migration (Erickson 2004). Migrants that funnel through a concentrated migration corridor or along landforms such as ridges, steep slopes, and valleys are more at risk of collisions if wind energy facilities also occur in these areas (IDNR 2007, Kingsley and Whittam 2003). Most night migrants fly between 300-2,000 feet (91-610 m), so the risk of collision is expected to increase as tower height and rotor diameter increase (Kerlinger 2004, Morrison 2006, Smallwood and Thelander 2004).

Yet there are no spring night-time radar studies for passerines.

Direct impacts due to habitat loss, modification, and fragmentation from land use changes associated with wind energy construction and development may render sites unusable for birds and may have the greatest adverse impacts to bird communities (Kuvlesky et al. 2007). Long-term impacts are caused by the cumulative footprint of the turbine towers, access roads, transmission lines, and supporting infrastructure that removes or alters habitat, which may displace birds from preferred habitat, shift birds to less desirable habitat, and cause birds to avoid impacted areas (Rugge et al. 2003, Smallwood and Thelander 2004, Strickland 2004).

Also:

Research conducted in sagebrush-steppe habitat on dirt roads with a low volume of traffic showed that density of sagebrush obligate birds was reduced by 39-60% within a 328-foot (100 m) buffer around roads (Ingelfinger and Anderson 2004). Although the reduction may not be biologically significant, this study raises concern about the impacts of roads created during wind developments and the possibility that the presence of obligate species and area-sensitive species may decline if the habitat they require is removed or compromised. Roads are a direct cause of habitat loss and fragmentation, thereby reducing both habitat quantity and quality. An increase in roads may also increase bird-vehicle collisions and reduce native plant biodiversity by facilitating the introduction and spread of invasive plants and noxious weeds (Erickson et al. 2005, Kuvlesky et al. 2007).
Indirect impacts occur when habitat and landscape alterations disrupt foraging behavior, activities associated with breeding, and migration patterns (Kunz et al. 2007). Studies have reported displacement effects that range from approximately 250-2,600 feet (75-800 m) away from wind turbines (Leddy et al. 1999, Strickland 2004). Large wind energy developments may create a barrier along migration paths or between foraging and roosting areas, causing a behavioral shift in birds, avoidance of habitats associated with

and adjacent to wind energy developments, and an increase in the amount of energy expended during movements (Drewitt and Langston 2006, Winegrad 2004).
Birds may avoid habitat at and surrounding wind energy developments due to the presence of continuous motion and constant noise. Although not well studied, reports suggest that changes in wildlife behavior and habitat use may occur in response to shadow flicker, which is caused by sunlight passing through the rotating blades of wind turbines (IDNR 2007). Passerines that occupy open habitats may be most affected, as the rapidly moving shadow may resemble the flight of an aerial predator, potentially causing both behavioral changes and increased stress levels (IDNR 2007).
Excessive or continuous noise during wind energy development and production may interfere with the vocal communication of birds, particularly during the breeding season (March through July for most raptors and April through July for most passerines). Birds that rely on vocal cues to attract and retain mates and defend territories can be particularly sensitive to noise. Continuous noise produced by turbine engines and rotor blades and noises associated with substations, transmission lines, and routine maintenance (e.g. vehicular traffic, motorized equipment) may adversely affect territory selection and defense, foraging and fledging success, song learning, and dispersal (Nicholoff 2003). Excessive noise may also produce stress in individual birds, resulting in avoidance of impacted areas and lower population densities within impacted areas.
The effects of continuous noise on bird communities are greatest where noise levels exceed 50 dB(A); however, even moderate noise levels of 40 to 50 dB(A) may negatively impact bird communities (Nicholoff 2003). The sound power level from a single wind turbine is approximately 100 to 104 dB(A) for 1 to 1.4 MW turbines, which results in a sound pressure level of 58 to 62 dB(A) at a distance of 164 feet (50 m) from the turbine
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(Rogers and Manwell 2002). When the sound pressure level from each turbine in a string

When the sound pressure level from each turbine in a string
or cluster is summed to determine a combined noise level of the entire production area, the continuous noise at levels above 49dB(A) have potential to displace breeding birds. Ultimately, facility size and design and the areas in which developments are located will dictate the degree of impact that wind energy production has on birds.

Microlimate

Comparatively little research has focused specifically on microclimate effects of wind farms. However, several authors suggest that large wind farms will cause microclimate changes ranging from surface desiccation to altered snow deposition and rainfall patterns, and in some locations, effects from opening up forest canopies (Al-Afifi et al. 1990; Baidya et al. 2004; Keith et al. 2004; Boone et al. 2005; Café Sentido 2006; Groupe Affaires corporatives et secrétariat général d'Hydro-Québec 2005; Douglas 2006; Industrial Wind Action Group 2006; International Union of Conservation for Nature 2006; National Research Council 2007; Andrews 2008; Kemm 2008; and Ragheb 2008). Keith et al. (2004) observed, "Large-scale use of wind power can alter local and global climate by extracting kinetic energy and altering turbulent transport in the atmospheric boundary layer." Perhaps the most authoritative research findings to date were published by Baidya et al. (2004) who suggested that a wind farm significantly slows down the wind at turbine hub-height level. Additionally, turbulence generated by rotors create eddies
that can enhance vertical mixing of momentum, heat, and scalars, usually leading to a warming and drying of the surface air and reduced surface sensible heat flux

This desiccation effect is most pronounced in arid environments. Drier conditions at ground level will reduce forage production and potentially alter plant community composition. Loss of forage may lower the carrying capacity of areas affected by large wind farms, (assuming wildlife are not displaced by the wind farm itself). In Wyoming, this effect is of greatest concern on big game winter ranges and in sage-grouse winter concentration areas.

In some locations, snow deposition may increase on the leeward side of wind farms (Ragheb 2008). Although greater snow depth can improve spring soil moisture, this will also cause forage to become less accessible during winter months. Forage is normally exposed on windward slopes and ridge tops within a winter range complex. These locations tend to be the most attractive sites for wind farm development. Consequently, desiccation may reduce forage production in the most accessible portions of a winter range complex, whereas additional snow accumulation on the downwind side could bury less accessible forage under even deeper snow.

In Wyoming, at least in the near term, most wind farms will be sited within grassland and sagebrush steppe ecosystems where microclimatic conditions may change due to altered wind flow patterns, desiccation effects, and snow accumulation patterns

Air Quality

The construction of roads and pads will
change how water will run off the landscape. This change will affect the infiltration rate of water, increase the velocity and quantity of water running across the landscape, and potentially could increase erosion and sediment deposition into nearby waterways. Roads have the potential for having the most profound impact on hydrology. Changes in hydrology across the landscape will then be reflected in changes in the geomorphology of perennial streams downstream of the project area. Ultimately, changes in geomorphology will directly influence aquatic habitat which may impact fish populations. P. 18.

WGFD at 41: recommends a risk assessment reconnaissance survey. There is no indication this was done. In fact, despite other agencies, WWP, Birdhunters, other groups telling BLM and RES since the time of the first MET towers that this was landscape of great significance for wildlife, the developer has pushed forward – with BLM apparently powerless to say no – and in fact allowing harmful and intrusive MET towers with lethal guy wires to be incrementally placed amid very important habitats.

Also, this recommends implementing before and after control surveys to determine level of impacts. This has not been done, and there is no adequate baseline info provided to base any valid future comparisons on.

Bats: Apply passive acoustic equipment on MET towers. Two units per MET tower – At different heights, and also conduct roaming acoustic surveys in areas not covered by acoustic surveys. Capture surveys – mist-netting bats. Acoustic surveys using anabat or other methods – with calls interpreted by a qualified professional.

Note: The sage-grouse avoidance measures here are now known to be woefully inadequate.

These are just some of our concerns. While some other studies may by now have been done, the fact that the EIS relies so heavily on this flawed and limited report further buttresses the need for a SEIS.

CD ATTACHMENTS

We are submitting cds with Literature. One contains sage-grouse, livestock grazing, and other information to be considered in the direct, indirect and cumulative analysis part a SEIS.

Another contains many references on the adverse impacts of wind development.

Attachment List

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From: Katie Fite [mailto:katie@westernwatersheds.org]
Sent: Thursday, October 20, 2011 8:21 AM
To: brian_fuell@blm.gov; Miller, Kenneth E; Morales, Raul; Kenneth W Cole; Jon Marvel
Subject: Re: Gateway Transmission Line EIS: Nevada as a Sacrifice Zone?

To clarify one thing: Sage-grouse Lek mapping is actually in Appendix E. Maps of leks and core habitats are 11-2 (Wyoming) and 11-3 (Idaho) with bordering Nevada in Map 11-3 a big blank. Appendix D has the Tables.

For raptors, there is one Map with NV info. This is appendix E, Map 10-6 It depicts one raptor nest and/or roost in Nevada. A golden eagle. Since there have not been major mines or tower development here, how adequate have any previous surveys been?

This EIS was a long time in development, and the lack of critical biological information, baseline surveys and adequate information is distressing.

Raptor electrocutions and other problems do indeed happen (for example electrocuted birds can burst into flames and ignite fires – as has happened in SW Idaho), along with lines providing perches that impact predation of sage-grouse, pygmy rabbits, etc. and construction would occur along an unknown and unrevealed number of access roads, and potential new roading could be constructed and persist increasing human access and disturbance, along with the smashing or blading of sagebrush along areas where the line uprights are assembled. We could certainly also expect disturbance to raptor nest sites so this information needs to be scrutinized, too.

I have Attached photos we took of SWIP assembly near the Grant Range for your review. August 2011. Photo 3080 shows one part of the horizontal part of a tower laying on the bladed ground surface. Photo 3082 shows the adjacent sagebrush which likely had extended on to the bladed site. An adjacent road through sagebrush was all torn up, and appeared to have been expanded sideways, too –or it may have been new altogether.

Katie

On 10/19/11 2:50 PM, "Katie Fite" <katie@westernwatersheds.org> wrote:

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It seems uncertain to me whether brood rearing areas are different than nesting habitat???

In earlier pages the text already sets it up so that even this all can be waived if BLM agrees, or it can also be cast aside if a highway or ag land (who knows how that might be defined) or line of sight is blocked between a lek and Gateway activity.

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And unless full and detailed information is provided on conflicts with sage-grouse and other wildlife in Nevada, it will be easier to do this.

And of that is the case, here is what could happen: To the West of Salmon Falls Reservoir on the ID-NV border will be China Mountain = Dead Zone for grouse. To the east would be a new Gateway line – opening up the border area there to wind sprawl. BLM and the southern division of the Sawtooth Forest in Idaho have issued various wind rights-of-ways for MET towers in the South Hills area, and if this line is built - more are likely. So a combined huge impact to grouse and other wildlife over the whole region.

Why does Nevada BLM care so little about its grouse in this region that it settles for such pathetic (and ever-waivable) "avoidance"?

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Western Watersheds Project

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Katie Fite
Western Watersheds Project

"Nathan Maxon"
<nathan@wyomingoutdoorcouncil.org>
10/28/2011 02:16 PM

To <gateway_west_wymail@blm.gov>
cc <wgeorge@blm.gov>
bcc
Subject Gateway West Comments

Mr. George,

Please accept these comments regarding the Gateway West DEIS. Attached, are two documents, our comments on this project and a comment letter that we reference in our comments.

Thank you for your time and consideration.

Best regards,

Nathan Maxon
Energy and Public Lands Fellow
Wyoming Outdoor Council
262 Lincoln Street
Lander, WY 82520
(307) 332-7031 ext. 11

HawkWatch CCSM comments.doc GatewayDEISCommentsWOC.pdf

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Walt George, Project Manager
Bureau of Land Management
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P.O. Box 1828
Cheyenne, WY 82003
Gateway_West_WYMail@blm.gov

October 28, 2011

Re: Comments for the Gateway West transmission line project draft environmental impact statement.

Dear Mr. George:

Please accept these comments from the Wyoming Outdoor Council regarding the above-referenced project and associated environmental impact statement.

I. Purpose and need and reasonable alternatives.

The Department of Interior's NEPA handbook explains that the "purpose and need statement for an externally generated action must describe the BLM purpose and need, *not an applicant's or external proponent's purpose and need*." Department of Interior, Bureau of Land Management, National Environmental Policy Act Handbook 35, (citing 40 C.F.R. § 1502.13) (emphasis added), *available at* http://www.blm.gov/pgdata/etc/medialib/blm/wo /Information_Resources_Management/policy/blm_handbook.Par.24487.File.dat/h1790-1-2008-1.pdf (citing 40 C.F.R. § 1502.13) (emphasis added). Furthermore, "[t]he applicant's purpose and need may provide useful background information, but this description must not be confused with the BLM purpose and need for action . . . It is the BLM purpose and need for action that will dictate the range of alternatives. . ." *Id.* As courts have cautioned, "One obvious way for an agency to slip past the structures of NEPA is to contrive a purpose so slender as to define competing 'reasonable alternatives'

out of consideration (and even out of existence.)" *Davis v. Mineta*, 302 F.3d 1104, 1119 (10th Cir. 2002) (quoting *Simmons v. United States Army Corps of Eng'rs*, 120 F.3d 664, 669 (7th Cir. 1997). 100□□2

BLM's purpose and need statement for this project narrowly constrains the inquiry to approval or non-approval of the right-of-way application that the proponent has submitted. In addition to determining whether a right-of-way should be approved, we ask that BLM expand the statement and need to include a determination of whether the public interest, balanced resource use, and the mandates of the Federal Land Policy Management Act (FLPMA)[1] and the National Forest Management Act (NFMA)[2] will be met. An expanded purpose and need would help determine whether Rocky Mountain Power (RP) could accomplish its objectives by other means such as a less transmission, generation closer to load, conservation, or distributed generation - relevant in this context is RP's ability to comply with FERC orders 890 and 1000. From an expanded purpose and need, BLM could frame alternatives that would help it determine whether this transmission line is in the public interest and whether it would cause "unnecessary or undue and unnecessary degradation"[3] of public lands. In addition to alternatives that would be prompted by an expanded purpose and need, we believe that BLM should fully analyze additional, reasonable, alternative route segments – such segments in Wyoming include: a route going east from the Aeolus substation to the east slope of the Laramie Range and a route that would follow I-80 into Utah.

II. Cumulative and indirect effects

We believe that the broad nature and scope of the Gateway West transmission line warrants further examination so that the public is adequately informed of the impacts from this and other projects. A proper cumulative impacts analysis may reveal that it may not be feasible to build this transmission line. Primary among the deficiencies of the GW DEIS is the failure to properly address cumulative and indirect impacts.

[1] 43 U.S.C. § 1701 *et seq.*
[2] 16 U.S.C. § 1600 *et seq.*
[3] 43 U.S.C. § 1732(b).

A "[c]umulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 CFR § 1508.7. It is settled law that "the benchmark signaling the need for a cumulative impact EIS" is whether projects are "so interdependent that it would be unwise or irrational to complete one without the others." *Park County Resource Council, Inc. v. U.S. Dept. of Agriculture*, 817 F.2d 609, 623 (10th Cir. 1987). 100□□2

An "effect is "reasonably foreseeable" if it is "sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision. *Mid States Coalition for Progress v. Surface Transp. Bd*., 2003, 345 F.3d 520, 550 (8th Cir. 2003) (quoting *Sierra Club v. Marsh*, 976 F.2d 763, 767 (1st Cir. 1992). In addition, the court in *Mid States* noted that "when the nature of the effect is reasonably foreseeable but its extent is not, we think that the agency may not simply ignore the effect." *Id.* In this case, the proposed railroad project had yet to finalize coal-hauling contracts, but despite the lack of contracts, the court still found the EIS wanting for its failure to evaluate impacts from the increased consumption of coal that the railroad would enable.

Indirect effects are those "caused by the action and are later or farther removed in distance, but are still reasonably foreseeable" and "may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems." 40 CFR § 1508.8(b)

Section 3 of the GW DEIS analyzes impacts that are directly attributable to the GW line, but because it is reasonably foreseeable that GW will induce growth of wind energy generation along its length we believe that Section 3 should fully analyze these indirect impacts. In addition, BLM should amend section 4, cumulative impacts, to include wind energy generation that is induced by GW as well as other proposed transmission lines and the wind energy generation that those lines would induce.

Section 4.3 very briefly summarizes the various activities with potential for cumulative impacts with GW. Table 4.3-1 lists "Construction of new wind facilities" and briefly notes that "[v]isual, cultural, socioeconomic, vegetation, special-status plants and animals, weeds, wetlands, wildlife, paleontologic resources, geologic hazards, soils, water, land use, agriculture, transportation, air quality, noise" could be affected. The subsequent cumulative impacts analysis on section 4.4 fails to properly analyze cumulative impacts. For example, section 4.4.3 attempts to analyze cumulative impacts to visual resources and notes that "[n]ew activities that would add to the industrial character of the landscape prevalent in Wyoming include the establishment of new energy and mineral extraction sites as well as construction of new transmission lines, pipeline, and other linear facilities." Section 4.4.3 also states that "[m]ost prominent of the new energy facilities would be the proposed wind energy parks, given the strong vertical contrast of the turbines and blades (300 to 400 feet) against the generally flat to rolling terrain of the area. Nowhere in section 4.4 does the DEIS give the reader any clear idea about where or how many wind energy structures might be enabled by Gateway West or other proposed transmission lines. One small wind energy facility, the Pioneer Wind Park is briefly mentioned. All that a reader learns from this section is that some new wind energy parks might be built somewhere in Wyoming.

Because the capacity of GW will substantially increase at the Aeolus substation, we can guess that significant new wind generation might occur near Aeolus. The purposes of NEPA are not served by asking readers to speculate when the agency can provide more detailed information. The remainder of section 4.4 provides little or no information about specific impacts to specific places or resources. For example, Section 4.4.11.3 gives just three paragraphs of discussion to migratory birds and concludes that "additional transmission lines and addition wind farms will add to migratory bird deaths from collision" and that "the cumulative impact on migratory bird habitat and ecological conditions would be substantial." Table 4.4-2 hints that specific wind projects might occur in conjunction with GW, in this case within core sage-grouse habitat, but no details about the scope or location of the "[w]ind lease" and "two proposed" are provided. 4.4.12.17 only mentions impacts from the GW line and concludes that "cumulative effects of the Gateway West Project on habitat for both

species of prairie dog when considered together with the effects of past, present, and reasonably foreseeable future projects would be substantial."

No specific treatment was given to cumulative impacts to golden eagle populations, which are likely to be impacted by wind energy facilities induced by GW and other proposed transmission lines. Significant golden eagle population declines could well determine the fate of GW as well as other transmission projects. Thus, a well-developed cumulative impacts analysis for golden eagles should be a primary consideration before BLM commits additional resources toward this or other transmission line proposals. Each of these examples, above, are indicative of the short-shrift that has been given to the cumulative effects analysis.

Of the seven proposed wind energy projects listed in table 4.2-15, only one project, the 100 MW Pioneer Wind Farm, could be expected to tie into routes proposed for segment 1 of GW. We wonder where and how much wind energy generation is planned for GW. The presence of the Heward substation and the increased capacity beginning at the Aeolus substation indicates that a significant source of generation must be planned for the greater Medicine Bow area. According to its NEPA Hotsheet,[4] BLM is already aware of potential plans to develop 1,351 MW of wind energy in the Shirley Basin in the area adjacent to the planned Heward substation. Unfortunately, these and other projects within BLM's sphere on knowledge were not mentioned in section 4. These projects, and especially the Dry Creek Wind Project,[5] are reasonably foreseeable.

Because substations are expensive components, a prudent person would consider it sufficiently likely, without viewing the BLM Hotsheet, that a significant amount of infrastructure would be connected to GW at the Heward and Aeolus substations. Generation infrastructure, noted in the Hotsheet or otherwise, that would connect to GW must certainly be considered interdependent, otherwise it would be irrational for Rocky Mountain Power to construct this line. The growth of

[4] *See* the Wyoming BLM NEPA Hotsheet at http://www.blm.gov/pgdata/etc/medialib/blm/wy/information/NEPA.Par.24843.File.dat/hot_sheet.pdf (last accessed October 27, 2011).
[5] *Id.* (Discussing how the proponent of the Sand Creek Wind Project has a "draft Power Producers Agreement" and intends to "tie into the proposed future Gateway West transmission line.")

interdependent generation infrastructure induced by GW must be considered if the public is to have a true sense of the cumulative and indirect impacts from this project.

A proper indirect and cumulative effects analysis for each resource would begin with a discussion of the scope and location of reasonably foreseeable development activities, especially wind generation. BLM should be able to deduce how many wind energy facilities the GW and other transmission lines will enable given the expected capacity rating of each transmission line. Only once this initial projection is made, can BLM adequately address cumulative impacts to the various resources mentioned in table 4.3-1. We expect a relatively specific and thorough analysis that quantifies impacts to specific resources in specific areas. For example, how would golden eagle populations be affected by individual golden eagles killed by the infrastructure needed to power each of the proposed lines? We believe that BLM's duty to inform the public will not be met unless cumulative impacts are analyzed in a much more robust manner that will convey how the future of places and resources will be affected by GW.

We do not consider the analysis in the 2004 Wind Energy programmatic environmental impact statement (WEIS)[6] to be an adequate analysis of cumulative impacts because it is outdated and lacks site-specific information at a spatial scale relevant to GW. In addition, we believe that approval of this line without discussing the nature and extent of reasonably foreseeable development on BLM land would be an "irreversible and irretrievable commitment of resources"[7] because construction of GW will induce development and force BLM to allocate subsequent resources and land. Finally, we would expect that BLM and RP would want to understand, with a relatively high degree of certainty, what the cumulative impacts might be to golden eagles. As BLM is aware, golden eagles are protected under the Migratory Bird Treaty Act (MBTA)[8] and the Bald and Golden Eagle Protection Act (BGEPA)[9]. We are very concerned that wind energy generation induced by GW as well as other planned transmission lines could act in concert to cause significant golden eagle mortality in the proportion

[6] http://windeis.anl.gov/eis/index.cfm (last accessed October 27, 2011).
[7] 42 U.S.C. § 4332(C)(v).
[8] 16 U.S.C. § 703 *et seq.*
[9] 16 U.S.C. § 663 *et seq.*

expected to occur at the Chokecherry and Sierra Madre Wind Energy Project (CCSM).[10] Significant wind energy related golden eagle mortality would likely violate the MBTA and BGEPA and could lead to listing the golden eagle under the Endangered Species Act[11].

III. Past and future planning

The wide breadth of effects that will be induced by GW and other planned transmission projects would best be addressed by a legally-binding master plan for wind and transmission infrastructure in southern and eastern Wyoming. Haphazard oil and gas development, prompted by the nomination leasing system and hobbled by resource location uncertainty, has had far-reaching consequences for open spaces, air, water, and wildlife. To ensure a balance of resource uses, BLM should assume a leadership role and craft a future for wind development on our public lands that does not discount the value of our open spaces and wildlife.

In October of 2010 we became aware, through Tom Lahti, that BLM hoped to embark upon a master planning effort for wind development in Wyoming. We were hopeful and optimistic that this planning effort would chart a wise course for wind energy and transmission development in Wyoming – one that would allow renewable generation yet protect Wyoming's priceless landscapes and wildlife populations. To our knowledge, this Wyoming planning effort was prompted by and would have averted many of the problems BLM encountered with industrial-scale solar projects in the Mojave desert. We are aware of the Wyoming Wind and Transmission Study and are hopeful that it will yield a better understanding of where to site wind and transmission infrastructure. Unfortunately, the fact that it is a "study" implies that this effort will not produce a legally-binding plan. Moreover, it is our understanding that this effort will not be completed for another two years. Meanwhile, BLM is moving forward with GW and other large transmission NEPA processes and associated land use plan amendments.

[10] *See* e.g. Hawkwatch CCSM comments.doc (Discussing statistical models that predict an annual mortality between 36 and 215 eagles from the proposed 1000 wind turbines planned at the Chokecherry and Sierra Madre sites and that "even the lowest fatality estimate provided by WEST (i.e., 36 Golden Eagles/year) may have cumulative impacts on the local eagle population and that additional in-depth consideration of this risk is warranted.")

[11] 16 U.S.C. § 1531 *et seq.*

We are very concerned about how present projects like GW and CCSM and future projects are allowed to force resource management plan (RMP) and forest plan amendments, especially when many of these plans were recently finalized after many years of significant public involvement.[12] These amendments, combined with the forthcoming Wyoming sage-grouse RMP amendments and the numerous BLM[13] and Forest Service[14] plan amendments for the West-Wide energy corridors (WWEC) cause us to question the value of land use planning. We also question whether it is proper to amend an RMP in response to a single right-of-way request.

In the instant case, the land use plan amendments suggested are at odds with the vision and constraints of various RMPs, especially the Kemmerer RMP. Both the Kemmerer RMP and the WWECs chose to only allow transmission through the Kemmerer field office along Interstate 80. Allowing RP's right-of-way request to force an amendment to the Kemmerer RMP would undermine that plan's vision and cohesiveness. Numerous stakeholders helped create a balanced management approach in the Kemmerer RMP. This balance will be upset if the BLM fails to keep its promise to site transmission along Interstate 80 in the Kemmerer field office. If BLM insists upon pursuing a route through the northern portion of the Kemmerer filed office, we believe that BLM must initiate a revision, instead of amending, the Kemmerer RMP. A plan revision may be necessary for other BLM and Forest Service planning areas as well.

Piecemeal right-of-way grants that require endless NEPA processes and RMP amendments are not a good way to guide wind energy and transmission development in Wyoming or elsewhere. BLM can and should take the lead role and proactively address this critical issue before resources are committed. We suggest that BLM begin a comprehensive and interdisciplinary planning process for wind energy and transmission infrastructure on BLM lands in southern and eastern Wyoming. Through this process, BLM and stakeholders would determine where and how wind energy and

[12] E.g., a record of decision (ROD) was signed on May 24, 2010 for the Kemmerer BLM resource management plan (RMP) after seven years of revision work; a ROD was signed on December 24, 2008 for the Rawlins BLM RMP after seven year of revision work, and the ROD was signed in December of 2007 for Casper RMP after four and a half years of revision work.

[13] http://corridoreis.anl.gov/documents/docs/Energy_Corridors_final_signed_ROD_1_14_2009.pdf (last accessed October 27, 2011).

[14] http://corridoreis.anl.gov/documents/docs/WWEC_FS_ROD.pdf (last accessed October 27, 2011).

transmission infrastructure would be built. The results of this process would be final, binding, and not subject to amendment. Such a planning effort would make the hard decisions, now, about which areas would be developed for wind energy and which areas would be managed for other resource values. 100332

We thank you for the opportunity to share our concerns.

Sincerely,

Nathan Maxon
Energy and Public Lands Fellow
Wyoming Outdoor Council

Enc.(1): HawkWatch CCSM comments.doc

Attention: Pamela Murdock
Bureau of Land Management
Rawlins Field Office
1300 North Third
PO Box 2407
Rawlins, WY 82301

Dear Ms. Murdock:

We thank the Bureau of Land Management (BLM) for this opportunity to comment on the Draft Environmental Impact Statement (DEIS) for the proposed Chokecherry and Sierra Madre Wind Energy Project (CCSM Project). We at HawkWatch International, a non-profit conservation science organization that specializes in birds of prey and with raptor experience and knowledge specific to the Rawlins Field office, wish to offer our input at this juncture in the planning process. We recognize that diversifying our American energy portfolio by adding renewable resources such as wind power is necessary to help reduce the threat of climate change and reduce our dependency on fossil fuels. However, we also stress that only through proper consideration of raptors and other wildlife can we reasonably reduce the potential risks that accompany wind, or other forms of development, for birds of prey. Our comments below address particular issues or concerns we have identified concerning raptors upon thorough review of the CCSM DEIS.

Although consultant raptor surveys and existing BLM data are referenced in the CCSM DEIS, we do not believe the potential raptor value of certain areas in or near the proposed project boundaries is given adequate consideration. For example, Tables 1-3 and 1-4 list regulations and issues relevant to the potential project, but make no mention of a number of "Key Raptor Areas" (KRAs) that have been previously identified in the area. Through BLM co-authorship and signing of Raptor Research Report #8 (see Olendorff et al. [1989]), BLM signaled a commitment to "protect and manage raptor habitats on public lands to the best of its ability within the multiple-use mandate provided by the Federal Land Policy and Management Act (FLPMA). In preparing the report, individual BLM field offices identified a total of 223 KRAs with the intention of providing guidance to future planning and management efforts, such at this one. KRAs were defined as areas with unusually high raptor nesting, migration, or wintering concentrations that deserved special consideration during decision making (Olendorff et al. 1989). Although KRAs were given consideration in early Rawlins field office planning (e.g., see the 1990 Great Divide Resource Area ROD), they were not given adequate consideration in the 2008 ROD for the updated Rawlins Resource Management Plan (e.g., only the Atlantic Rim and Shamrock Hill Raptor Concentration Areas [RCA] are mentioned specifically; others RCAs are discussed more generically) or this current CCSM DEIS. The 1987 DEIS that led to the 1990 Great Divide ROD discussed RCAs, likely leading to the KRA designations in the cited Raptor

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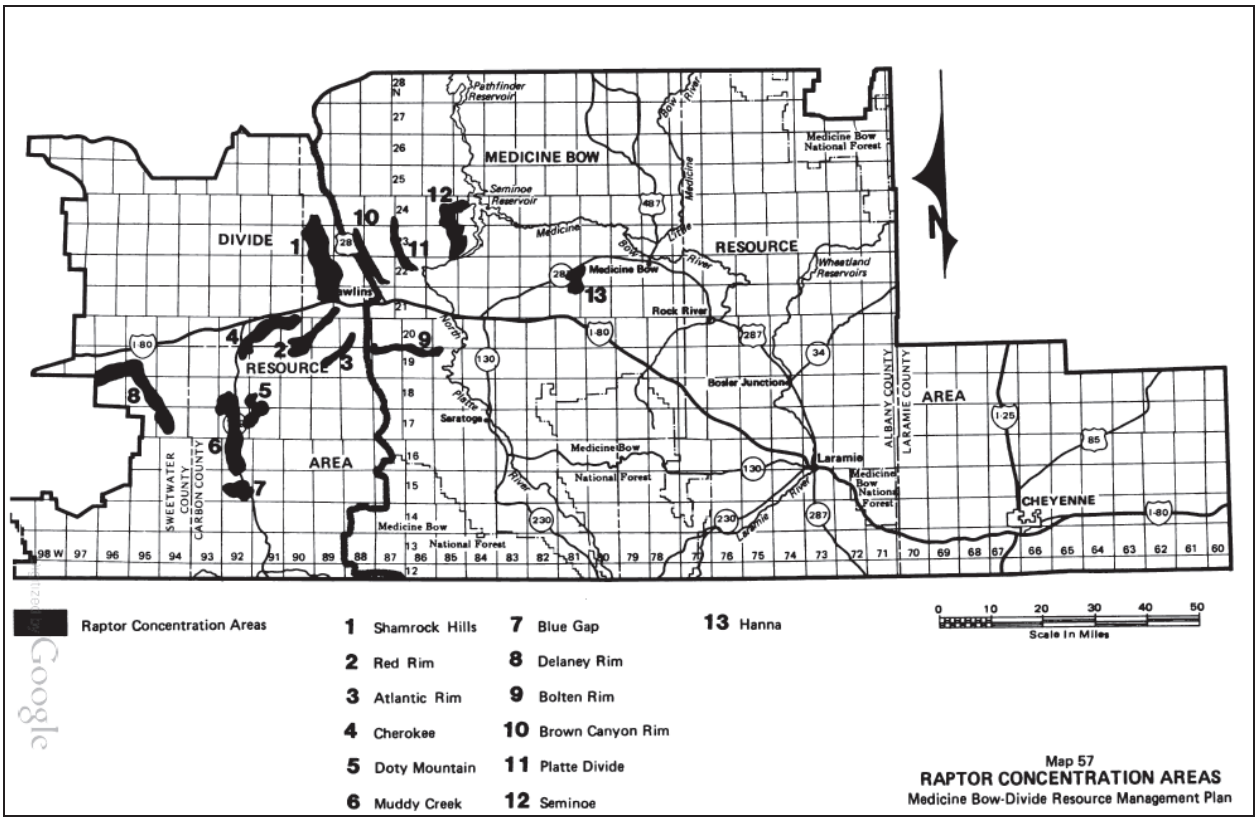
Research Report (Olendorff et al. 1989). Three KRAs are of particular relevance to the proposed wind development: #212: Muddy Creek (intersects western portion of Sierra Madre project area); #205: Bolten Rim (alternately referred to as Bolton; intersects southern portion of Chokecherry project area); and #203: Atlantic Rim (outside project areas, but near western border of both). All three KRA's identify the Golden Eagle, Ferruginous Hawk, and Prairie Falcon as priority species (Olendorff et. al. 1989). The 1987 DEIS provided an early map of these raptor concentration areas (see Map 57 in that document, also pasted below). It is not clear why the Rawlins BLM (and other BLM offices) have moved away from giving the identified KRAs proper consideration in decision making.



Map 57 from the 1987 Draft RMP and EIS for the Medicine Bow and Divide Resource Areas.

South-central Wyoming supports one of the largest known breeding populations of Ferruginous Hawks (Olendorff 1993), a recognized BLM species of concern (CCSM DEIS Table 3.15-1). WEST, the consulting firm carrying out raptor surveys for this project, reported no active Ferruginous Hawk nests within 1 mile of the project boundaries (see 3.15-11), despite the fact that BLM has documented 52 nests of this species in the area over a 30-year period (3.14-19). Additionally, BLM raptor data that HawkWatch has reviewed for this area suggests at least 4 Ferruginous Hawk territories were active (eggs laid) in a single year during the peak survey coverage of the area (early 1980's). A single aerial survey in May 2008 is not sufficient to document potential nest activity in the project area. For example, a study conducted near the proposed project boundaries found that aerial observers detected only 41.4% of active Ferruginous Hawk nests (see Ayers and Anderson 1999).

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The project area also has the potential to support a high number of nesting or resident Golden Eagles. Although WEST's 2008 aerial nest survey only found 3 active nests, BLM surveys over a 30-year period documented 102 Golden Eagle nests within 1 mile of the project area (see 3-14-19). Additionally, the BLM raptor data that HawkWatch reviewed suggests up to 11 Golden Eagle territories were active (eggs laid) within a single year during the early 1980's, the period of greatest survey coverage. The Golden Eagle is protected by both the Migratory Bird Treaty Act and the Bald and Golden Eagle protection Act. The U.S. Fish and Wildlife Service (USFWS) has expressed a current "no net loss" goal for Golden Eagles, due to concern over the current population status and potential impacts from wind turbines (USFWS 2011). WEST suggests that up to 36 Golden Eagles may be killed annually by collisions in the project area based on a single year of point count data (4.14-18 and 4.14-19). With a potential project life span of up to 30 years (see DEIS Appendix A), it is impossible to agree with the CCSM DEIS conclusion of "no cumulative impact through population reductions for raptors" (see 5-30) without the provision by BLM of substantial support for this claim. A single study (Hunt 2006), where eagle mortality was apparently suffered mostly by floaters, was cited as the only support for this statement, but without any speculation on the local CCSM eagle population dynamics, availability of floaters, etc., this citation has no value.

Additionally, we are not confident in WEST's annual raptor and eagle mortality estimates, due to flaws that have been pointed out repeatedly by others in previous reviews of their fatality estimation technique (e.g., wind mortality expert Kevin Smallwood). Most importantly, in their treatment of the mortality estimation (see 4.14-18 and 4.14-19), they base their estimate on a regression relationship between pre-project raptor use and observed post-project mortality gleaned from data reported at a number of modern wind facilities (but excluding more modern turbines/data from Altamont). In previous assessments, WEST has included a figure of this relationship, but it is not included in the current DEIS. However, the figure of the regression provided below was taken from Stickland et al. (2011; primary authorship by WEST consultants) shows the major flaw with this equation: namely, two points at the far right are the primary drivers behind the slope of the regression line and if different results had been observed for even one of these sites, the slope of the relationship could have been altered significantly. The bottom line is that this supposedly strong regression (69.9% R-squared value) cannot be relied upon to predict fatality, as has been repeatedly pointed out by K. Smallwood elsewhere.

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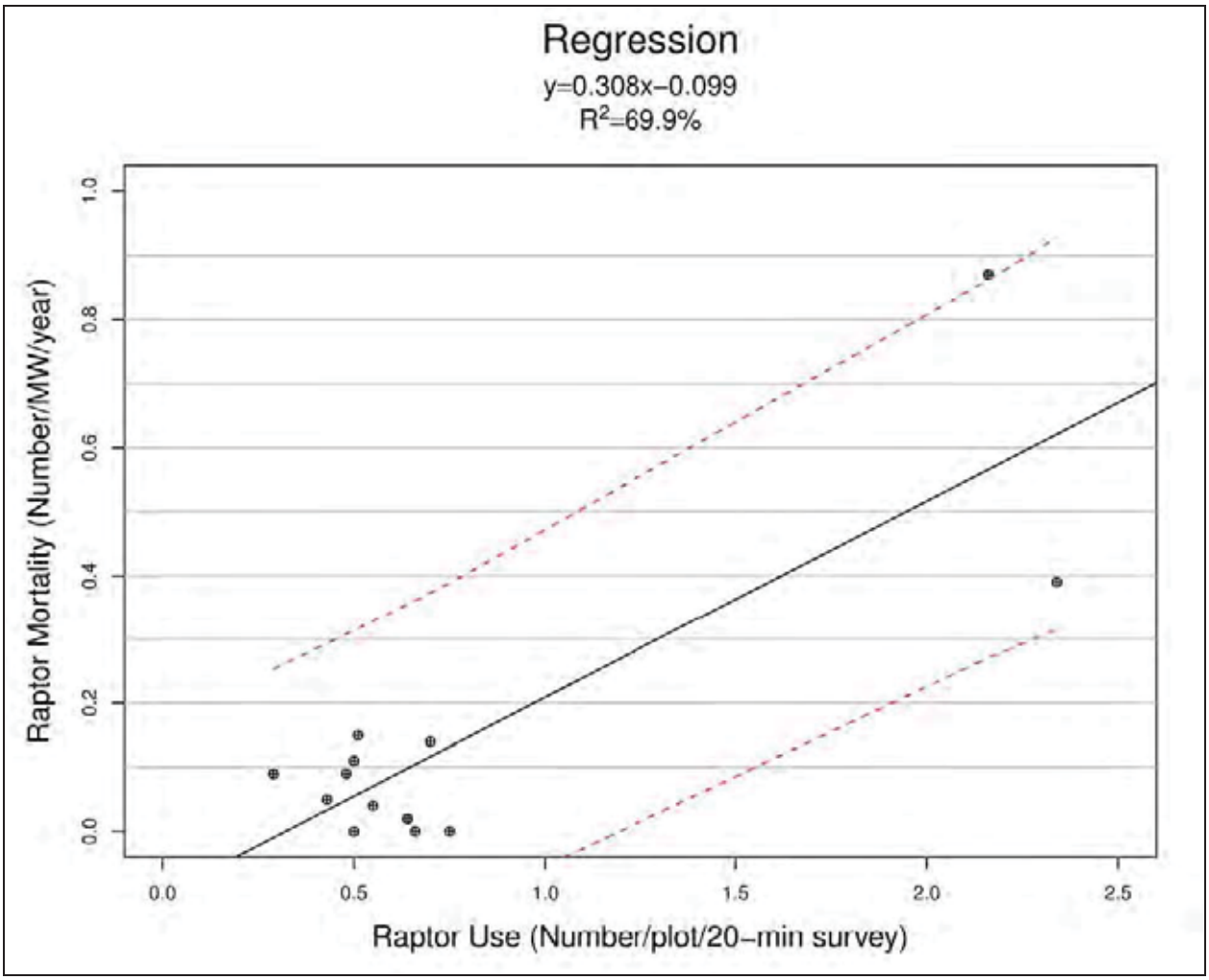

Figure 1.4 from Strickland et al. (2011); note the disproportionately large influence of the two rightmost observations on the regression slope (if only one of these points is removed, the line becomes either much steeper or much less steep).

Raptor flight and mortality data from Altamont Pass Wind Resource Area suggests fatality of large raptors can be directly correlated with flights/hour at blade height or simply the number of birds observed/hour (Smallwood et al. 2009). Smallwood et al. (2009) suggest deaths/megawatt/year may be estimated from the following regression equation, assuming turbine size and design are not major factors in collision risk (also an assumption under the WEST approach): death/megawatt/year = -0.0081 + 0.177 times the number of birds observed/hour. Inserting the same values used by WEST (see 4.14-8 and 4.14-9) of 0.46 raptors/plot/20-min survey (or 1.38/hr), Golden Eagles representing 30.4% of flight observations, and an assumed 3,000 MW project produces an annual raptor mortality estimate of 708 under the Smallwood model, compared to WEST's annual estimate of 120 raptors. Similarly, the Smallwood model suggests 215 Golden Eagle deaths per year (30.4% of total raptor mortality) compared to the WEST estimate of 36. It should be noted that WEST's reported 90% prediction interval of 0–0.30 fatalities/MW/year suggests large uncertainty in the estimate and produces a range of mortalities at the proposed 3,000 MW CCSM project of 0–900 raptors. Clearly, estimating fatalities with any degree of certainty is extremely difficult given our current limited

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knowledge of the factors that influence risk and how they might vary by species, in different landscapes, turbine configurations, etc. Regardless, we caution that even the lowest fatality estimate provided by WEST (i.e., 36 Golden Eagles/year) may have cumulative impacts on the local eagle population and that additional in-depth consideration of this risk is warranted.

Finally, we find that too little attention is given to potential mitigation or management considerations to reduce risk to raptors. Table 4.12-2 in the DEIS discusses relevant management consideration for various wildlife groups and includes a section for birds, but only discusses proposed actions related to passerines. At a minimum, the Rawlins BLM's extensive knowledge of raptor nesting concentrations gathered over a 30-year period should be used to guide where development may or may not be allowed. Both BLM's current RMP and the CCSM DEIS discuss spatial buffers around active raptor nests of 1 mile for Golden Eagles and Ferruginous Hawk and ¾ of a mile for other raptors. Additionally, we recommend that BLM use GIS to identify concentrations of nests and the formerly designated KRAs/RCAs to identify areas of exclusion/avoidance, regardless of their status during a single aerial survey in 2008. Concentrations of nests likely reflect attractive combinations of nesting/foraging habitat that, even if currently inactive, may become important to raptors again in the future. We specifically recommend that BLM provide a buffer around Atlantic Rim to protect the high value nesting habitat there and also buffer around the cliffs bordering the ~12-15 mile southern boundary of the Chokecherry project area (i.e. from Sheep Mountain following boundary to near Little Sage Creek), given the high concentration of nests there in the 30-year BLM raptor database, including 41 Golden Eagle nests (see Figure 3.14-8 in the DEIS).

We also suggest that the BLM use a larger buffer around these high value raptor areas than the 1-mile buffer BLM currently used for Golden Eagles. The current BLM spatial buffer was designed to prevent disturbance to nesting birds (e.g., from oil and gas drilling); they were not intended to protect birds hunting around their nests from potential interaction with turbines. The Golden Eagle literature suggested that birds breeding in the western U.S. exploit home ranges averaging 20–33 km² in size (equivalent to a 1.6–2.0-mile-radius), depending on the study area (reviewed in Kochert et al. [2002]), but they can be as large as 83 km² (3.2-mile radius) in southwestern Idaho (Marzluff et al. 1997). Therefore, we suggest a minimum 2-mile buffer around Golden Eagle territories. In contrast, Ferruginous Hawks forage over average home ranges of 6.0–7.6 km² in size (equivalent to a 0.8–1.0-mile radius; Smith and Murphy 1973, McAnnis 1990), so the existing 1-mile disturbance buffer may also be a sufficient wind development buffer for this species.

Thank you for your careful consideration of these raptor-related issues as you proceed with the decision making process for this proposed project.

Sincerely,

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To Gateway_West_WYMail@blm.gov
cc "Joy Bannon" <joybannon@wyomingwildlife.org>
bcc
Subject Gateway West Transmission Line

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October 6, 2011

Walt George, Project Manager,
Bureau of Land Management
Gateway West Project
PO Box 20879
Cheyenne, WY 82003

Gateway_West_WYMail@blm.gov

Re: Gateway West Transmission Line Project

Dear Mr. George:

The Wyoming Wildlife Federation (WWF), established in 1937 and with current standing membership of over 5,000, is Wyoming's oldest and largest statewide conservation organization. Our mission is to work for hunters, anglers and other wildlife enthusiasts to protect and enhance habitat, to perpetuate quality hunting and fishing, to protect citizens' rights to use public lands and waters, and to promote ethical hunting and fishing. Please accept the following comments from WWF regarding the Gateway West (GWW) transmission line project.

I. Routing

When considering the siting of GWW environmental and social impacts should be avoided to the greatest extent possible. The transmission line should be developed within existing corridors and co-located with other transmission lines when possible. Additionally transmission lines should be sited in areas where disturbance has already occurred and avoid construction in "green spaces." Areas that should be avoided include crucial big game winter ranges/severe winter ranges, migration corridors, Greater Sage-grouse core areas, National Wild, Scenic, and Recreational Rivers, wetlands, National Historic and National Scenic trails, and cutthroat trout habitat. Damages should be minimized and mitigated using best management practices, cooperation with landowners, and innovative technologies.

Wyoming Wildlife Federation's siting preference follows:

- Segment 1 – 1E-C
- Segment 2 – Proposed

- Segment 3 – Proposed
- Segment 4 – 4F/4A

II. Transportation

Appendix C: Revised Environmental Protection Measured Plans outlines the Proponent's protection measures to minimize traffic and transportation impacts. TR-14 calls for "(r)oads developed specifically for this project that are identified by the Proponents as no longer necessary will be reclaimed as specified in the Reclamation, Revegetation, and Weed Management Plan." To minimize the mitigation needed for these temporary roads, reduce reclamation costs and to minimize the impact of the temporary road WWF would like to encourage the proponent to implement disappearing roads technology for all temporary roads.

In 2008 a team of University of Wyoming students won the "Disappearing Roads Competition" for their layered mat, roll-out road system (Wyoming 2008). The roll-out road is designed with synthetic boards and developed by Heartland Biocomposites. The mats can reduce ground and habitat disruption by up to 88 percent. If these mats are unavailable WWF would like to encourage the Proponent to take advantage of other temporary road mats. These temporary roads can be laid down on top of the sagebrush steppe and removed when the road is no longer needed. As opposed to creating temporary gravel roads which require the removal of vegetation, road creation, and then reclamation these new roads technology do not disturb the root system of the sagebrush allowing for quicker recovery of the sagebrush steppe.

III. Recreation

WWF encourages the Proponent and Agencies to consider sportsmen and the sporting heritage by avoiding blasting in areas when they are open to hunting as well as during the first week prior to the hunting season. Wyoming sportsmen and women value the hunting opportunity provided throughout the state and these values are at risk when noise from blasting temporarily relocates big game.

In order to protect the rights of sportsmen who hunt in these areas WWF recommends halting construction on public lands during hunting season within affected hunt areas. The disturbance caused by construction will negatively affect sportsmen's hunting experience and could possibly lead to lower success rates.

IV. Environmental Protection Measures

Section 3.10 General Wildlife and Fish within the Affected Environment and Environmental Effects the Agencies recommend further environmental protection measures which WWF would encourage the proponents to adopt for their Final EIS. The Agency recommends 12 additional protection measures for wildlife and 2 additional fisheries protections; WWF

supports the adoption of these measures. WWF would also recommend that the Agencies give no exceptions for construction during the recommended timing for big game fawning, calving, or lambing. Additionally, WWF recommends that the Agencies give no exceptions to construction during seasonal closures on winter ranges.

In order to address the concerns associated with this large work force we recommend the following actions.

- Any man camps that are created should be fenced to exclude livestock and wildlife. These fences will minimize conflict and help to protect wildlife and livestock.

- Employees should be required to participate in an Environmental Awareness Training Program. Trespass laws, laws on public lands, and current Wyoming Game and Fish regulations should be covered for the benefit of employees new to the area.

- Mandatory reprimand should be used in cases of employees convicted of poaching or harassing wildlife while employed by the company, its contractors, or subcontractors

- Guns should be prohibited on any job site to prevent harassment or poaching of wildlife.

- Efforts should be made to bus construction crews to the work site to reduce overall vehicular traffic. This effort will reduce disturbance of wildlife in the area and reduce the risk of vehicle collisions with wildlife.

- Dogs should be prohibited on any job site to prevent harassment of wildlife.

- Reclamation of roads associated strictly with construction should begin immediately after completion of construction; reclamation being complete within five years.

- Shuttles/busses should be used whenever possible to reduce vehicle traffic in the area. Vehicle traffic and increased human interaction can result in increased movement in mule deer and increased physiological stress (Group 2007). Interactions should be minimized whenever possible.

- No construction activity should take place from November 15 – April 30 in big game crucial winter range to minimize impacts to wintering wildlife.

- Construction activity should not take place during hunting season and one week prior to hunting season to avoid altering the recreation opportunity.

- Decontamination of equipment should occur before work begins around or near water, as well as when construction equipment leaves the area.
- Areas disturbed during construction that contribute sediment to surface waters should be re-vegetated as quickly as possible to ensure water quality.
- Riparian vegetation should be protected by leaving a 200 foot buffer on each side of streams and water courses. The buffer should be expanded to 500 feet in the case of waterways with sensitive aquatic species.
- Equipment should be serviced and fueled away from riparian areas.
- All lines should be constructed in a raptor proof manner, ensuring the safety of raptors throughout the area.

V. Reclamation

Appendix C-2 Framework Reclamation Plan for Construction Activities outlines the proponent's outline their plan to reduce erosion, sedimentation, dust control, and prevention of noxious or invasive weeds. Within that plan the proponent calls for certified weed free straw or hay to be used as a BMP to control erosion, dust, and control establishment of noxious or invasive weeds. WWF would encourage the Agencies and Proponents to consider using new straw technologies, SuperStraw. This innovative product is produced from beetle kill pine and spruce as well as Sudden Aspen Decline aspen; free of seeds, chemicals, and dust (Sleeping Giant Industries 2011).

VI. Cumulative Impacts

In section 3.17.3 the Agencies outline eleven additional mitigation measures that they recommend the Proponents incorporate within their Environmental Protection Measures to minimize or avoid impacts on land use and recreation. WWF encourages the implementation of these measures. Mitigation measure LU-4 calls for coordination of the proponent with the Chokecherry Sierra Madre Wind Energy Development, TransWest Express Transmission line; WWF encourages the Proponents to not only coordinate with TransWest Express but make every attempt to co-locate with other proposed transmission lines.

According to the BLM's Wyoming National Environmental Policy Act Hotsheet several wind energy facilities are being proposed for BLM lands along the GWW route and were not disclosed in the Draft EIS. In the Final EIS WWF would recommend adding the Sand Creek wind project in Wyoming's Shirley Basin, which is to be tied into the GWW transmission line. (BLM 2011)

VII. Mitigation

As part of mitigation efforts the proponents are proposing an in-lieu fee payment for unavoidable impacts to waters. Additionally, the proponents are considering a combination of in-lieu fee and permittee-responsible mitigation including preservation, restoration, creation of new/existing wetlands. WWF has been recognized as a suitable sponsor for an in-lieu free program and would like to be considered as a partner in this endeavor.

VIII. Sage-grouse

GWW's proposed routes include important Greater sage-grouse habitat in Wyoming. WWF is concerned that the GWW transmission line will cause adverse impacts to sage-grouse if improperly sited and should avoid leks, nearby nesting and brood-rearing habitats, and winter habitat. The FEIS should take into account current sage-grouse habitats not just active leks as the DEIS considers.

- Transmission line design should bury lines if possible and when not possible lines should run a minimum of 0.6 miles from the perimeter of occupied Greater(?) Sage Grouse leks.
- Timing stipulations should be extended from the proposed March 1 to May 15 – to allow for nesting and early brood rearing.
- Reclamation should reestablish grasses, forbs, and shrubs during the interim and final reclamation for the benefit of sage grouse.

IX. Adaptive Management

All monitoring must be done by qualified personnel according to rigorous and standardized science-based protocols. Wildlife data collected during monitoring make up a large proportion of the decision-making information used by the agency and the project proponent for designing and adjusting mitigation measures and it is therefore essential that these data are accurate, reliable, complete, and developed according to rigorous protocols. Inappropriate study designs, insufficient or poorly timed data collection, or poorly skilled field personnel may result in skewed, biased, and unreliable findings. This is especially problematic in light of the weakening population trends for greater sage-grouse, mule deer, pronghorn, and golden eagles across multiple regions, trends which dictate close assessment of population viability and conservation measure success. It is also paramount that there is full disclosure of mortality and other negative impacts to the BLM and other cooperating agencies.

We suggest the development of a monitoring and mitigation matrix for wildlife, wildlife habitat, fisheries, aquatic habitat, and stream changes with thresholds and indicators.

Further, we suggest the development of an action plan to guide efforts once the thresholds are met. One example of such is found in the Record of Decision & Final Supplemental Environmental Impact Statement for the Pinedale Anticline Oil and Gas Exploration and Development Project, Appendix B. Some framework for defining impacts is necessary.

We offer the following additional suggestions for your consideration to the extent that BLM seeks to rely on adaptive management as a portion of its impact-mitigation efforts:

- The stipulations intended to protect wildlife need to be strictly enforced.
- Incorporate the most current and relevant scientific data that analyzes wildlife and fisheries impacts related to development.
- Follow WGFD Wind Recommendations.
- Establish an action plan for the potential loss of existing big game migration corridors.
- Provide an environmental compliance plan that clearly states how the BLM will enforce monitoring, environmental compliance and remediation on wildlife and fisheries affected by wind development in the project area. The environmental compliance plan should be developed on a landscape scale to determine management options for wildlife and aquatic species.
- Vegetation monitoring should be part of the development and production phase. BLM must effectively protect habitats at risk from impacts associated with the proposed development.
- A baseline water quality monitoring and analysis plan must be developed. It should include a schedule for baseline surveys and data gathering prior to construction, during and after.
- Limiting human disturbance and activity during critical big game seasons will help mitigate impacts, but if and only if they are enforced and no exceptions are allowed.
- All roads and project activities should be located as far from riparian and wetland communities as possible.
- Reclaim vegetation sites by using re-seeding techniques that promote non-invasive vegetation production.

X. Conclusion

WWF appreciates the opportunity to comment on the proposed GWW transmission line project. WWF would like to encourage the Proponent and agencies to implement new

technologies in the construction and reclamation of this project. Additionally WWF would encourage the proponent and agencies to consider wildlife, sportsmen and women in the construction and maintenance of the project.

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